

U.S. Fish & Wildlife Service

# Rhode Island National Wildlife Refuge Complex

*Comprehensive Conservation Plan  
Appendices*



# Table of Contents

- Glossary
- Literature Cited
- Appendix A, Trust Resources and Other Species and Habitats of Management Concern
- Appendix B, Response to Public Comments on Draft CCP/EA
- Appendix C, Finding of No Significant Impact (FONSI)
- Appendix D, Compatibility Determinations
- Appendix E, Land Protection Plan
- Appendix F, RONS and MMS Project Lists
- Appendix G, Staffing Chart
- Appendix H, Plan Monitoring
- Appendix I, List of Preparers
- Appendix J, Section 7 (Endangered Species Act) Consultation
- Appendix K, State Historic Preservation Office Consultation

**Glossary**

**Glossary**

**adaptive ecosystem management**- Use of the findings of ecology to manage natural resources, not for maximum commodity production (a traditional industrial forest), or for preservation of current conditions (a traditional reserve), but for the perpetuation of patterns and processes that allow the ecosystem to persist. This management style stresses experimentation, collaboration, and re-evaluation.

**adaptive management**- responding to changing ecological conditions so as to not exceed productivity limits of a specific place. For example, when crop growth slows, a good farmer learns to recognize ecological signs that tell either to add more manure or to allow a field to lie fallow. Adaptive management becomes impossible when managers are forced to meet the demands of outsiders who are not under local ecological constraints (from Dodson et al., 1998).

**alternative** – a reasonable way to fix the identified problem or satisfy the stated need (40 CFR 1500.2) [see also *management alternative* below].

**anphidromous fish** – fish that can migrate from fresh water to the sea, or vice versa, not for the purpose of breeding, but at other times during the life cycle of the fish.

**anadromous** – fish that spend a large proportion of their life cycle in the ocean and return to freshwater to breed.

**appropriate use** – a proposed or existing use of a national wildlife refuge that (1) supports the Refuge System Mission, the major purposes, goals or objectives of the refuge; (2) is necessary for the safe and effective conduct of a priority general public use on the refuge; (3) is otherwise determined under Service Manual Chapter 605 FW 1 (draft), by the Refuge Manager and Refuge Supervisor to be appropriate.

**aquatic barrier** – any obstruction to fish passage.

**aquatic** – growing in, living in, or dependent upon water.

**barrier free** – improved area designed to be accessible to people with physical disabilities.

**benthos** – organisms that live on or in the bottom of a body of water.

**biological integrity** – biotic composition, structure, and function at the genetic, organism, and community levels consistent with natural conditions, and the biological processes that shape genomes, organisms, and communities.

**biological or natural diversity** – the abundance, variety, and genetic constitution of animals and plants in nature. Also referred to as “biodiversity.”

**breeding habitat** – habitat used by migratory birds or other animals during the breeding season.

**buffer zones** – protective land borders around critical habitats or water bodies that reduce runoff and nonpoint source pollution loading; areas created or sustained to lessen the negative effects of land development on animals and plants and their habitats.

**candidate species** – those species for which the Service has on file sufficient information on biological vulnerability and threats to propose them for listing.

**carrying capacity**-the size of the population that can be sustained by a given environment.

**catadromous fish** – fish that spend most of their lives in fresh water but migrate to sea to reproduce.

**Categorical Exclusion** (CE, CX, CATEX, CATX) - a category of actions that do not individually or cumulatively have a significant effect on the human environment and have been found to have no such effect in procedures adopted by a Federal agency pursuant to the National Environmental Policy Act (40 CFR 1508.4).

**CFR** – Code of Federal Regulations.

**Challenge Cost Share Program** – a grant program administered by the Fish and Wildlife Service providing matching funds for projects supporting natural resource education, management, restoration and protection on Service lands, other public lands and on private lands.

**community** - the area or locality in which a group of people resides and shares the same government.

**community type** – a particular assemblage of plants and animals, named for the characteristic plants.

**compatible use** – an allowed use that will not materially interfere with, or detract from, the purposes for which the unit was established (Service Manual 602 FW 1.4).

**compatibility determination** – a compatibility determination is required for a wildlife-dependant recreational use or any other public use of a refuge. A compatible use is one which, in the sound professional judgement of the Refuge Manager, will not materially interfere with or detract from fulfillment of the Refuge System Mission or refuge purpose(s)

**Comprehensive Conservation Plan (CCP)** – a document that describes the desired future conditions of a refuge or planning unit and provides long-range guidance and management direction to achieve the purposes of the refuge, help fulfill the mission of the System, maintain and, where appropriate, restore the biological integrity, diversity, and environmental health of each refuge and the System, and meet other mandates.

**concern** – see *issue*.

**conservation** – the management of natural resources to prevent loss or waste. Management actions may include preservation, restoration, and enhancement.

**conservation agreements** – written agreements reached among two or more parties for the purpose of ensuring the survival and welfare of unlisted species of fish and wildlife and/or their habitats, or to achieve other specified conservation goals. Participants voluntarily commit to implementing specific actions that will remove or reduce the threats to these species.

**conservation easement** – a legal agreement between a landowner and a land trust (a private, nonprofit conservation organization) or government agency that permanently limits a property's uses in order to protect its conservation values.

**cool-season grass** – introduced grass for crop and pastureland that grows in spring and fall and is dormant during hot summer months.

**cooperative agreement** – the legal instrument used when the principal purpose of the transaction is the transfer of money, property, services or anything of value to a recipient in order to accomplish a public purpose authorized by Federal statute and substantial involvement between the Service and the recipient is anticipated.

**cultural resources** – evidence of historic or prehistoric human activity, such as buildings, artifacts, archaeological sites, documents, or oral or written history.

**cultural resource inventory** – a professionally conducted study designed to locate and evaluate evidence of cultural resources present within a defined geographic area. Inventories may involve various levels, including background literature search, comprehensive field examination to identify all exposed physical manifestations of cultural resources, or sample inventory to project site distribution and density over a larger area. Evaluation of identified cultural resources to determine eligibility for the National Register follows the criteria found in 36 CFR 60.4 (Service Manual 614 FW 1.7).

**cultural resource overview** – a comprehensive document prepared for a field office that discusses, among other things, its prehistory and cultural history, the nature and extent of known cultural resources, previous research, management objectives, resource management conflicts or issues, and a general statement on how program objectives should be met and conflicts resolved. An overview should reference or incorporate information from a field office's background or literature search described in Section VIII. of the Cultural Resource Management Handbook (Service Manual 614 FW 1.7).

**database** – a collection of data arranged for ease and speed of analysis and retrieval, usually computerized.

**diadromous** – fish that migrate from freshwater to saltwater or the reverse: a generic term that includes anadromous, catadromous and amphidromous fishes.

**digitizing** – the process of converting information from paper maps into geographically referenced electronic files for a geographic information system (GIS).

**early successional stage** - a vegetated area that is in the primary stages of ecological succession.

**easement** – an agreement by which a landowner gives up or sells one of the rights on his/her property. For example, a landowner may donate a right of way across his/her property to allow community members access.

**ecological integrity** – the integration of biological integrity, natural biological diversity, and environmental health; the replication of natural conditions.

**ecological succession** - the orderly progression of an area through time from one vegetative community to another in the absence of disturbance. For example, an area may proceed from a grass-forb, through a shrub-scrub, to a mixed hardwood forest.

**ecosystem** – a biological community together with its environment, functioning as a unit. For administrative purposes, the Service has designated 53 ecosystems covering the United States and its possessions. These ecosystems generally correspond with watershed boundaries and vary in their sizes and ecological complexity.

**ecotourism** – a type of tourism that maintains and preserves natural resources as a basis for promoting economic growth and development resulting from visitation to an area.

**ecosystem approach** – a way of looking at socio-economic and environmental information based on ecosystem boundaries, rather than town, city, or county boundaries.

**ecosystem-based management** – an approach to making decisions based on the characteristics of the ecosystem in which a person or thing belongs. This concept takes into consideration interactions between the plants, animals, and physical characteristics of the environment when making decisions about land use or living resource issues.

**ecosystem services** - the benefits human populations derive, directly or indirectly, from ecosystem functions (e.g., gas regulation, disturbance regulation, soil formation, pollination, raw materials).

**emergent wetland** – wetlands dominated by erect, rooted, herbaceous plants.

**endangered species** – a federally protected species which is in danger of extinction throughout all or a significant portion of its range.

**environmental education** – education aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution (Stapp et al. 1969).

**environmental health** – abiotic composition, structure, and functioning of the environment consistent with natural conditions, including the natural abiotic processes that shape environment.

**Environmental Assessment (EA)** – A concise public document, prepared in compliance with the National Environmental Policy Act, that briefly discusses the purpose and need for an action, alternatives to such action, and provides sufficient evidence and analysis of impacts to determine whether to prepare an environmental impact statement or finding of no significant impact (40 CFR 1508.9).

**Environmental Impact Statement (EIS)** – A detailed written statement required by section 102(2)(C) of the National Environmental Policy Act, analyzing the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources (40 CFR 1508.11).

**estuaries** – deepwater tidal habitats and adjacent tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land.

**estuarine wetlands** – “The Estuarine system consists of deepwater tidal habitats and adjacent tidal wetlands that are usually semienclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land.” (Cowardin et al. 1979)

**exemplary community type** – an outstanding example of a particular community type.

**extirpated** – no longer occurring in a given geographic area.

**federal land** – public land owned by the Federal government, including lands such as National Forests, National Parks and National Wildlife Refuges.

**federally listed species** – a species listed under the federal Endangered Species Act of 1973, as amended, either as endangered, threatened or species at risk (formerly candidate species).

**Finding of No Significant Impact (FONSI)** – A document prepared in compliance with the National Environmental Policy Act, supported by an environmental assessment, that briefly presents why a Federal action will have no significant effect on the human environment and for which an environmental impact statement, therefore, will not be prepared (40 CFR 1508.13).

**focus areas** – Within each Areas of Biological Significance, focus areas further delineate concentrations or “hot spots” for species and habitats of special concern (see **Appendix A**).

**forbs** – A flowering plant, excluding grasses, sedges, and rushes, that does not have a woody stem and dies back to the ground at the end of the growing season.

**forested land** – land dominated by trees. For the purposes of the impacts analysis in this document, all forested land was assumed to have the potential to be occasionally harvested, and forested land owned by timber companies was assumed to be harvested on a more intensive, regular schedule.

**forested wetlands** – wetlands dominated by trees.

**frugivory** – feeding on fruit.

**Geographic Information System (GIS)** – a computerized system used to compile, store, analyze and display geographically referenced information. Can be used to overlay information layers containing the distributions of a variety of biological and physical features.

**goal** – descriptive, open-ended, and often broad statement of desired future conditions that conveys a purpose but does not define measurable units.

**grant agreement** – the legal instrument used when the principal purpose of the transaction is the transfer of money, property, services or anything of value to a recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute and substantial involvement between the Service and the recipient is not anticipated.

**grassroots conservation organization**– any group of concerned citizens who come together to actively address a conservation need

**habitat fragmentation** – breaking up of a specific habitat into smaller unconnected areas. A habitat area that is too small may not provide enough space to maintain a breeding population of the species in question.

**habitat conservation** – the protection of an animal or plant's habitat to ensure that the use of that habitat by the animal or plant is not altered or reduced.

**habitat** – the place where a particular type of plant or animal lives. An organism's habitat must provide all of the basic requirements for life and should be free of harmful contaminants.

**hydrologic or flow regime** – characteristic fluctuations in river flows.

**Integrated Pest Management (IPM)** - sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks.

**interjurisdictional fish** – populations of fish that are managed by two or more states or national or tribal governments because of the scope of their geographic distributions or migrations.

**interpretive facilities** – structures that provides information about an event, place or thing by a variety of means including printed materials, audiovisuals or multimedia materials. Examples of these would be kiosks which offer printed materials and audiovisuals, signs and trailheads.

**interpretive materials** – any tool used to provide or clarify information, explain events or things, or serve to increase awareness and understanding of the events or things. Examples of these would be: (1) printed materials such as brochures, maps or curriculum materials; (2) audio/visual materials such as videotapes, films, slides, or audio tapes; and (3) interactive multimedia materials, such as cd-rom and other computer technology.

**invasive species** – non-native species which have been introduced into an ecosystem, and, because of their aggressive growth habits and lack of natural predators, displace native species.

**habitat macrosites** - an area important because of the presence of rare species, ecological communities, and functioning ecosystems.

**intervisible posts** – as used here, the ability to see the standing posts immediately before and immediately after your position. You are not necessarily able to see the whole boundary from one position.

**issue** – any unsettled matter that requires a management decision; e.g., a Service initiative, an opportunity, a management problem, a threat to the resources of the unit, a conflict in uses, a public concern, or the presence of an undesirable resource condition. Issues should be documented, described, and analyzed in the CCP even if resolution cannot be accomplished during the planning process (Service Manual 602 FW 1.4). See also: *key issue*.

**key issue** – an issue meeting the following three criteria:

1. Falls within the jurisdiction of the Service;
2. Can be addressed by a reasonable range of alternatives;
3. Influences the outcome of the project.

**land trusts** – organizations dedicated to conserving land by purchasing land, receiving donations of lands, or accepting conservation easements from landowners.

**limiting factor** – an environmental limitation that prevents further population growth.

**local agencies** – generally referring to municipal governments, regional planning commissions or conservation groups.

**long term protection** – mechanisms such as fee title acquisition, conservation easements or binding agreements with landowners that ensure land use and land management practices will remain compatible with maintenance of the species population at the site.

**management alternative** – a set of objectives and the strategies needed to accomplish each objective (Service Manual 602 FW 1.4).

**management concern** – see *issue*.

**management opportunity** – see *issue*.

**management plan** – a plan that guides future land management practices on a tract of land. In the context of this environmental impact statement, management plans would be designed to produce additional wildlife habitat along with the primary products, such as timber or agricultural crops. See cooperative agreement.

**management strategy** – a general approach to meet unit objectives. A strategy may be broad, or it may be detailed enough to guide implementation through specific actions, tasks, and projects (Service Manual 602 FW 1.4).

**migratory game birds** - birds regulated under the Migratory Bird Treaty Act and state laws, that are legally hunted, includes ducks, geese, woodcock, rails.

**migratory nongame birds of management concern** – those species of nongame birds that (a) are believed to have undergone significant population declines; (b) have small or restricted populations; or (c) are dependent upon restricted or vulnerable habitats.

**mission statement** – succinct statement of the unit's purpose and reason for being (Region 7 Planning Staff).

**mitigation** – actions taken to compensate for the negative effects of a particular project. Wetland mitigation usually takes the form of restoration or enhancement of a previously damaged wetland or creation of a new wetland.

**National Environmental Policy Act of 1969 (NEPA)**

– requires all agencies, including the Service, to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in the planning and implementation of all actions. Federal agencies must integrate NEPA with other planning requirements, and prepare appropriate NEPA documents to facilitate better environmental decision making (from 40 CFR 1500).

**National Wildlife Refuge (Refuge)** – “A designated area of land, water, or an interest in land or water within the System, but does not include Coordination Areas.” Find a complete listing of all units of the System in the current *Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service*.

**National Wildlife Refuge System (Refuge System)** – all lands and waters and interests therein administered by the Service as wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, and other areas for the protection and conservation of fish and wildlife, including those that are threatened with extinction.

**National Wildlife Refuge System Mission (mission)** – “The mission of the System is to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

**native plant** – a plant that has grown in the region since the last glaciation and occurred before European settlement.

**natural conditions** – conditions thought to exist from the end of the Medieval Warm Period to the advent of the industrial era (approximately 950 AD to 1800 AD), based upon scientific study and sound professional judgement.

**non-consumptive, wildlife-oriented recreation** – photographing or observing plants, fish and other wildlife.

**non-point source pollution** – nutrients or toxic substances that enter water from dispersed and uncontrolled sites.

**nonforested wetlands** – wetlands dominated by shrubs or emergent vegetation.

**Notice of Intent (NOI)** – a notice that an environmental impact statement will be prepared and considered (40 CFR 1508.22). Published in the Federal Register.

**objective** – a concise statement of what we want to achieve, how much we want to achieve, when and where we want to achieve it, and who is responsible for the work. Objectives derive from goals and provide the basis for determining strategies, monitoring refuge accomplishments, and evaluating the success of strategies. Make objectives attainable, time-specific, and measurable.

**occurrence site** – a discrete area where a population of a rare species lives or a rare plant community type grows.

**old field** – an area that was formerly cultivated or grazed and where woody vegetation has begun to invade. If left undisturbed, it will eventually succeed into a forest. Many old fields occur at sites marginally suitable for crop production or pasturing. Old fields are highly variable in the Northeast, depending on soil, land use history, and management.

**Open Marsh Water Management (OMWM)** - a mosquito control technique that improves habitat conditions in salt marshes for mosquito-eating fish by creating ponds that will maintain the fish between lunar tides.

**outreach** – (from the Service’s National Outreach Strategy) Outreach is a two-way communication between the Service and the public to establish mutual understanding, promote involvement, and influence attitudes and actions, with the goal of improving joint stewardship of our natural resources.

**palustrine wetlands** – “The Palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0%.” (Cowardin et al. 1979)

**Partners for Wildlife Program** – a voluntary habitat restoration program undertaken by the Fish and Wildlife Service in cooperation with other governmental agencies, public and private organizations, and private landowners to improve and protect fish and wildlife habitat on private lands while leaving the land in private ownership.

**partnership** – a contract or agreement entered into by two or more individuals, groups of individuals, organizations or agencies in which each agrees to furnish a part of the capital or some in-kind service, i.e., labor, for a mutually beneficial enterprise.

**population monitoring** – assessments of the characteristics of populations to ascertain their status and establish trends related to their abundance, condition, distribution, or other characteristics.

**prescribed fire** – the application of fire to wildland fuels to achieve identified land use objectives (Service Manual 621 FW 1.7), either from natural or intentional ignition.

**priority public uses** – see *wildlife-dependant recreational uses*.

**private land** – land that is owned by a private individual, group of individuals, or non-governmental organization.

**private landowner** – any individual, group of individuals or non-governmental organization that owns land.

**private organization** – any non-governmental organization.

**Proposed Action (or Alternative)** – activities for which an Environmental Assessment is being written; the alternative containing the actions and strategies recommended by the planning team. The proposed action is, for all practical purposes, the draft CCP for the refuge.

**protection** – mechanisms such as fee title acquisition, conservation easements or binding agreements with landowners that ensure land use and land management practices will remain compatible with maintenance of the species population at the site.

**public** – individuals, organizations, and groups; officials of Federal, State, and local government agencies; Indian tribes; and foreign nations. It may include anyone outside the core planning team. It includes those who may or may not have indicated an interest in the Service issues and those who do or do not realize that Service decisions may affect them.

**public involvement** – a process that offers impacted and interested individuals and organizations an opportunity to become informed about, and to express their opinions on Service actions and policies. In the process, these views are studied thoroughly and thoughtful consideration of public views is given in shaping decisions for refuge management.

**public involvement plan** – long term guidance for involving the public in the CCP process.

**public land** – land that is owned by the local, state, or Federal government.

**rare species** – species identified in Appendix 3–6 as Species of Special Emphasis due to their uncommon occurrence within the watershed.

**rare community types** – plant community types classified as rare by any of the four state Natural Heritage Programs. As used in this environmental impact statement, is inclusive of the exemplary community types. The types are listed in Appendix A.

**Record of Decision (ROD)** – a concise public record of decision prepared by the Federal agency, pursuant to NEPA, that contains a statement of the decision, identification of all alternatives considered, identification of the environmentally preferable alternative, a statement as to whether all practical means to avoid or minimize environmental harm from the alternative selected have been adopted (and if not, why they were not), and a summary of monitoring and enforcement where applicable for any mitigat CFR 1505.2).

**refuge goals** – descriptive, open-ended and often broad statements of desired future conditions that convey a purpose but do not define measurable units (Writing Refuge Management Goals and Objectives: A Handbook).

**refuge purposes** – the purposes specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, a refuge unit, or refuge subunit, and any subsequent modification of the original establishing authority for additional conservation purposes (Service Manual 602 FW 1.4).

**refuge lands** – those lands in which the Service holds full interest in fee title, or partial interest such as easements.

**Refuge Operating Needs System (RONS)** – the Refuge Operating Needs System is a national database which contains the unfunded operational needs of each refuge. We include projects required to implement approved plans, and meet goals, objectives, and legal mandates.

**restoration** – the artificial manipulation of a habitat to restore it to something close to its natural state. Involves taking a degraded grassland and re-establishing habitat for native plants and animals. Restoration usually involves the planting of native grasses and forbs, and may include shrub removal and prescribed burning.

**runoff** – water from rain, melted snow, or agricultural or landscape irrigation that flows over the land surface into a water body.

**Service presence** – the existence of the Service through its programs and facilities which it directs or shares with other organizations; the public awareness of the Service as a sole or cooperative provider of programs and facilities.

**species of concern** – Species present in the watershed for whom the Refuge has a special management interest. The following criteria were used to identify “species of concern”:

1. Federally listed as threatened or endangered;
2. migratory birds, especially declining species, Neotropical migrants, colonial waterbirds, shorebirds, or waterfowl;
3. certain marine mammals;
4. sea turtle;
5. interjurisdictional fish;
6. State-listed as threatened, endangered, or **special concern**

**state land** – public land owned by a state such as state parks or state wildlife management areas.

**step-down management plans** – step-down management plans describe management strategies and implementation schedules. Step-down management plans are a series of plans dealing with specific management subjects (e.g., croplands, wilderness, and fire) (Service Manual 602 FW 1.4).

**stopover habitat** – habitat used during bird migration for rest and feeding.

**strategy** – a specific action, tool, technique, or combination of actions, tools, and techniques used to meet unit objectives.

**succession** – an orderly sequence of changes in plant species and community structure over time, leading to a hypothesized stable climax community.

**threatened species** – a federally protected species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**tiering** – the coverage of general matters in broader environmental impact statements with subsequent narrower statements of environmental analysis, incorporating by reference, the general discussions and concentrating on specific issues (40 CFR 1508.28).

**tributary** – a stream or river that flows into a larger stream, river or lake.

**trust resource** – one that through law or administrative act is held in trust for the people by the government. A federal trust resource is one for which trust responsibility is given in part to the federal government through federal legislation or administrative act. Generally, federal trust resources are those considered to be of national or international importance no matter where they occur, such as endangered species and species such as migratory birds and fish that regularly move across state lines. In addition to species, trust resources include cultural resources protected through federal historic preservation laws, nationally important and threatened habitats, notably wetlands, navigable waters, and public lands such as state parks and National Wildlife Refuges.

**unfragmented habitat** – large blocks of unbroken habitat of a particular type.

**unit objective** – desired conditions which must be accomplished to realize a desired outcome. Objectives are the basis for determining management strategies, monitoring refuge accomplishments, and measuring the success of the strategies. Objectives should be attainable and time-specific and may be stated quantitatively or qualitatively (Service Manual 602 FW 1.4).

**upland** – dry ground; other than wetlands.

**U.S. Fish and Wildlife Service Mission** – our mission is to work with others to “conserve, protect, and enhance fish and wildlife, and their habitat for the continuing benefit of the American people.”

**vegetation association** – a plant community type having definitive floristic composition and existing in similar physical environments.

**vernal pool** – depressions holding water for a temporary period in the spring and used by a variety of amphibians for egg laying.

**viable population:** a population that will continue to occur in the area for the foreseeable future. In population modeling, minimum viable population (MVP) is the smallest number of individuals that are needed to maintain a species population in the long term.

**vision statement** – concise statement of what the unit could be in the next 10 to 15 years (Region 7 Planning Staff) .

**visitor center** – a permanently staffed building offering exhibits and interpretive information to the visiting public. Some visitor centers are co-located with refuge offices, other include additional facilities such as classrooms or wildlife viewing areas.

**visitor contact station** – compared to a visitor center, a contact station is a smaller facility which may not be permanently staffed.

**warm-season grass** – native prairie grass that puts on the most growth during summer when cool-season grasses are dormant.

**watchable wildlife** – all wildlife is watchable. A watchable wildlife program is a strategy to help maintain viable populations of all native fish and wildlife species by building an effective, well-informed constituency for conservation. Watchable wildlife programs are tools by which wildlife conservation goals can be met while at the same time fulfilling public demand for wildlife recreational activities (other than sport hunting, trapping or sport fishing).

**watershed** – the geographic area within which water drains into a particular river, stream or body of water. A watershed includes both the land and the body of water into which the land drains.

**wet meadow** – meadows located in moist low-lying areas, most often dominated by large colonies of reed canary grass. They are often created by collapsed beaver dams and exposed old pond bottoms. Salt marsh meadows are subject to daily coastal tides.

**wetlands** – The U.S. Fish and Wildlife Service’s definition of wetlands states that “Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water.” (Cowardin et al 1979)

**wildlife-dependent recreational use** – “A use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation.” These are the six priority public uses of the System as established in the National Wildlife Refuge System Administration Act, as amended. Wildlife-dependent recreational uses, other than the six priority public uses, are those that depend on the presence of wildlife. We also will consider these other uses in the preparation of refuge CCPs, however, the six priority public uses always will take precedence.

**wildlife management** – the practice of manipulating wildlife populations, either directly through regulating the numbers, ages, and sex ratios harvested, or indirectly by providing favorable habitat conditions and alleviating limiting factors.

# Literature Cited

- Alaska Department of Fish and Game. 1994. Wildlife Notebook Series, <http://www.state.ak.us>. 3 pp.
- Allin, Charles. 2000. Personal communications. RI DEM. South Kingstown, RI.
- Amaral, Michael J. 1999 and 2000. Personal communications. U.S. Fish and Wildlife Service's New England Field Office. Concord, NH.
- Anders, Fred J. and Stephen P. Leatherman. 1987. Disturbance of beach sediment by off-road vehicles. *Environ. Geol. Water Sci.*; vol. 9, no. 3, pp. 183-189.
- Anders, Fred J. and Stephen P. Leatherman. 1987. Effects of off-road vehicles on coastal foredunes at Fire Island, New York, USA. *Env. Management* Vol. 11 No 1 pp. 45-52.
- Anderson, G.D., S. Edwards. 1983. The Coastal Ponds Survey: Some Preliminary Results. Univ. of RI, Department of Resource Economics. Unpub. Rept. 17pp.
- Andres, G., R. Flores, L. Longo, P. Paton, S. Stevens. 1999. Amphibian Community Structure at the Rhode Island National Wildlife Refuge Complex. Univ. of RI, Kingston, RI & U.S. Fish & Wildlife Service, Charlestown, RI. 21pp.
- Askins R.A. 1993. Populations Trends in Grassland, Shrubland, and Forest Birds in Eastern North America. *Current Ornithology* 11:1-34.
- Askins R.A. 1997. History of Grasslands in the Northeastern United States: Implications for Bird Conservation. Pp. 119-136 in *Grasslands of Northeastern North America* (Peter D. Vickery and Peter W. Dunwiddie, eds.). Massachusetts Audubon Society, Lincoln, MA.
- Bailey, R.G. 1994. Description of the Ecoregions of the United States. 2d ed. Forest Service, U.S. Dept of Agriculture. Misc Publ. No. 1391 (rev)
- Behrens, E.W., P.D. Carangelo, and H.S. Finkelstein. 1976. Effect of vehicular and pedestrian traffic on backshore vegetation and dune development. Final report to Office of Natural Science, Southwest Region, National Park Service. 69 pp.
- Bell, M. 1985. The Face of Connecticut. State Geological and Natural History Survey of Connecticut. Hartford, CT.
- Cohen, J.B. 1998. Greater Scaup as Bioindicators of Contaminants in Long Island Sound. Univ. of Conn. M.S. Thesis. 168pp.
- Comings, Scott. 1999 and 2000. Personal Communications. The Nature Conservancy on Block Island. Block Island, RI.
- Commonwealth Research Group, Inc. Cost of Community Services in Southern New England. Southern New England Forest Consortium, Inc., Boston, MA. 102pp.
- Curtin, Charles G. 1993. The Evolution of the U.S. National Wildlife Refuge System and the Doctrine of Compatibility. *Conservation Biology*, 7(1):29-37.
- Defenders of Wildlife. 1998. Science-Based Stewardship: Recommendations for Implementing the National Wildlife Refuge System Improvement Act. Washington, D.C. 26pp.
- Dunwiddie, P.W., W.A. Patterson III, J.L. Rudnicki, and R.E. Zaremba. 1997. Effects of burning and mowing from 1982 to 1993. Pp. 85-98 in *Grasslands of Northeastern North America* (Peter D. Vickery and Peter W. Dunwiddie, eds.). Massachusetts Audubon Society, Lincoln, MA.
- Eddleman, W.R. 1993. Monitoring Avian Productivity and Survivorship Site Additions, Ninigret National Wildlife Refuge. U.S. Fish & Wildl. Serv. Unpub. Rept. 17pp.
- Ferren, R.L. and James E. Myers. 1998. Rhode Island's Maritime Nesting Birds.
- Fish, S., N. Talancy, and C. Thompson. 1999. Rhode Island Piping Plover Restoration Project. Rhode Island NWR Complex, P.O. Box 307, Charlestown, RI. 50pp.
- Flores, R. 1998. Continuity Document for Rhode Island National Wildlife Refuge Complex. U.S. Fish & Wildl. Serv., RI NWR Complex, Charlestown, RI. Unpub. Rept.
- Flores, R. 1998. Trustom Pond Grasslands Report. U.S. Fish & Wildl. Serv., RI NWR Complex, Unpub. Rept.
- Flores, R. 1998. Ninigret National Wildlife Refuge Grasslands Program Progress Report. U.S. Fish & Wildl. Serv., RI NWR Complex, Unpub. Rept.
- Flores, R. 1998. Wetland Restoration Plan for Ninigret NWR Runway Areas. U.S. Fish & Wildl. Serv., RI NWR Complex, Unpub. Rept.
- Fish, S., C. Thompson, W. Edwards. 1998. Rhode Island Piping Plover Restoration Project: 1998. RI NWR Refuge Complex, Charlestown, RI. 39pp.

- George, Gilbert G. 1999. Rhode Island Botanical Survey Check List of the Native and Naturalized Plants, Shrubs and Trees of Rhode Island by Counties, Cities and Towns, Edition 8. Unpub. 315pp.
- Godfrey, Paul J., Stephen P. Leatherman and P.A. Buckley. 1978. Impact of off-road vehicles on coastal ecosystems. Pages 581-600 in Proceedings of the Symposium on Technical, Environmental Socioeconomic and Regulatory Aspects of Coastal Zone Planning and Management. San Francisco, California.
- Goldin, Meryl Rose. 1993. Effects of Human Disturbance and Off-Road Vehicles on Piping Plover Reproductive Success and Behavior at Breezy Point, Gateway National Recreation Area, NY, Department of Forestry and Wildlife Management. 128 pp.
- Goldin, Meryl Rose. and Jonathan V. Regosin. 1998. Chick Behavior, Habitat Use, and Reproductive Success of Piping Plovers at Goosewing Beach, Rhode Island. *J. Field Ornithol.*, 69(2): p. 228-234
- Harlin, M.M. and B. Thorne-Miller. 1978. Report to Sea Grant, Univ. of RI.
- Harlin, M.M. and V.J. Masson, and R.E. Flores. 1995. Distribution and Abundance of Submerged Aquatic Vegetation in Trustum Pond, Rhode Island. Dept. of Biol. Sci., Univ. of R.I. Unpubl. Rept. 28pp.
- Harrington, B. and N. Drilling. 1996. Investigations of Effects of Disturbance to Migratory Shorebirds at Migration Stopover Sites on the U.S. Atlantic coast. U.S. Fish and Wildl. Serv. Rept. Region 5. 89 pp.
- Hecht, Anne. 1999. Review of Piping Plover Habitat - Rhode Island Refuge Complex. U.S. Fish and Wildlife Service, Weir Hill Road, Sudbury, MA 01776. Unpubl. Memo.
- Hecht, Anne. 2000. Memo to Atlantic Coast Piping Plover Field Stations with preliminary 1999 results of piping plover populations and productivity. U.S. Fish and Wildlife Service, Weir Hill Road, Sudbury, MA 01776. Unpubl. Memo, January 24, 2000.
- Henshaw, C.F. 1995. Natural Wonders of Connecticut & Rhode Island. Country Roads Press, Castine, ME.
- Hoopes, E.M., C.R. Griffin, and S.M. Melvin. 1989. Effects of human recreation on piping plover foraging ecology and chick survival at Ninigret NWR Final Report. USFWS. 23 pp.
- Hoopes, E.M. 1993. Relationships Between Human Recreation and Piping Plover Foraging Ecology and Chick Survival, University of Massachusetts, Department of Forestry and Wildlife Management. 106 pp.
- Hoover, S.E. and M.R. Conover. 1998. Effectiveness of volatile irritants at reducing consumption of eggs by captive coyotes. *J. of Wildl. Mgt.* 62:399-405.
- Jacobson, Victoria. 1999. Cultural Resource Overview for the Rhode Island Refuge System, USFWS, Northeast Region, Unpubl. Report.
- Johnson, D. H., L. D. Igl, J. A. Dechant, M. L. Sondreal, C. M. Goldade, M. P. Nenneman, and B. R. Euliss. 1998. Effects of management practices on grassland birds: Grasshopper sparrow. Northern Prairie Wildlife Research Center, Jamestown, ND. 12 pages.
- Johnston, D.W. and E.P. Odum. 1956. Breeding bird populations in relation to plant succession on the Piedmont of Georgia. *Ecology* 37:50-62.
- Jorgensen, N. 1977. A Guide to New England's Landscape. The Globe Pequot Press, Chester, CT. 200 pp.
- Killingbeck K.T. and B. Deegan. 1996. Vegetation analysis and site characteristics of a rare plant community. Univ. of Rhode Is. Biol. Sc. Dept. Unpubl. Rept. 18pp.
- Killingbeck K.T. and B. Deegan, and R.E. Flores. 1999. Rare plant abundance in an endangered species "hot spot". *New England Naturalist*. *In press*.
- Kozol, A., M.P. Scott, and J.F.A. Traniello. 1986. Distribution and natural history of the American burying beetle, (*Nicrophorus americanus*) on Block Island, Rhode Island. Unpubl. Rept. Dept. of Biol. Boston University. 17pp.
- Kuchler, A.W. 1964. Potential natural vegetation in the conterminous U.S. American Geographical Society Publication 36. 116 p.
- Leatherman, Stephen and Paul Godfrey. 1979. The impact of off-road vehicles on coastal ecosystems in Cape Cod National Seashore. An overview. National Park Service Cooperative Research Unit, report No. 34. 34 pp.
- Lee, V., P. Pogue. 1993. Public Access to the Rhode Island Coast. A selective guide to parks, wildlife refuges, beaches, fishing sites, boat ramps, pathways, and views along Rhode Island's coast. University of Rhode Island Publications Office, Kingston, RI. 72pp.

- Loegering, J.P., J.D. Fraser. 1995. Factors affecting piping plover chick survival in different brood-rearing habitats. *The Journal of Wildlife Management*, Bethesda, MD. 59(4): p. 646 - 655.
- Massachusetts Division of Fisheries and Wildlife. 1996. Conservation plan for piping plovers in Massachusetts. Submitted to U.S. Fish and Wildlife Service. Westborough, MA. 35 pp.
- Melvin, S.M., A. Hecht, and C.R. Griffin. 1994. Piping Plover Mortalities Caused by Off-Road Vehicles on Atlantic Coast Beaches. *Wildl. Soc. Bull.* 22(3): p. 409-414.
- Melvin, S.M., C.R. Griffin and L.H. MacIvor. 1991. Recovery Strategies for Piping Plovers in Managed Coastal Landscapes. *Coastal Management*, Vol. 19: p. 21-34.
- Melvin, S.M., 1990. Effects of Research Activity on Piping Plover Nest Predation. *J. Wildl. Manage.* 54(3):p. 443-447.
- Melvin, S.M., 1992. Predator Exclosures: A Technique to Reduce Predation at Piping Plover Nest. *Wildl. Soc. Bull.* 20(2): p. 143-148.
- Moore, F. R. , and S. A. Gauthreaux JR., and P. K. Kerlinger, and T. R. Simons. 1995. Pp. 121-144 in *Ecology and Management of Neotropical Migratory Birds* (T. E. Martin and D. M. Finch, eds.). Oxford University Press, New York, NY.
- Morenon, E.P, Robinson, P. and J. McDonough. 1983. An archaeological assessment of the Trustom Pond National Wildlife Refuge. Rhode Island College, Providence, RI. 93 pages.
- National Oceanic and Atmospheric Administration, Rhode Island Department of Environmental Management, U.S. Department of the Interior, and U.S. Fish and Wildlife Service. 1998. Restoration plan and environmental assessment for the January 19, 1996 North Cape oil spill. Draft Environmental Assessment.
- National Park Service. 1992. *Economic Impacts of Protecting Rivers, Trails, and Greenways*. The Rivers, Trails, and Conservation Assistance Program of the National Park Service. Washington, D.C.
- Nature Conservancy, The. 1997. Queen River Watershed Conservation Plan. TNC Rhode Island Field Office, Providence, RI. 26pp.
- Nature Conservancy, The. 1997. Rhode Island Preserves. An illustrated guide to The Nature Conservancy's Rhode Island preserves, as well as some of the land the Conservancy has helped other conservation agencies to protect. 36pp.
- Nature Conservancy, The. 1998. Upper Wood River Conservation Plan. TNC Rhode Island Field Office, Providence, RI. 17pp.
- Nature Conservancy, The. 1998. Southern Pawcatuk Conservation Plan. TNC Rhode Island Field Office, Providence, RI. 23pp.
- North American Waterfowl Committee. 1988. North American Waterfowl Management Plan. 32 pp.
- Office of Technology Assessment. 1995. Technologies to Benefit Shoreline Property and Rare Species Habitat: An Atlantic Coast Example. Unpub. 46 pp.
- O'Neill, Anne. 1999. Personal communications. South County Economic Tourism Bureau. Charlestown, RI.
- Parrish, Jeffrey D. 1999. Patterns of frugivory and energetic condition in Nearctic landbirds during autumn migration. *The Condor* 99: 681-697.
- Partners in Flight. 1998. Landbird Conservation Plan: Physiographic Area 9: Southern New England (draft, unfinished). Cornell Lab of Ornithology, Ithaca, NY.
- Paton, P. 1996. Monitoring avian productivity and survivorship site additions, Ninigret National Wildlife Refuge. U.S. Fish & Wildl. Serv. Unpub. Rept. 17pp.
- Paton, P. 1994. Monitoring avian productivity and survivorship site additions, Ninigret National Wildlife Refuge. U.S. Fish & Wildl. Serv. Unpub. Rept. 17pp.
- Paton, P. 1997. Monitoring avian productivity and survivorship site additions, Ninigret National Wildlife Refuge. U.S. Fish & Wildl. Serv. Unpub. Rept. 17pp.
- Paton, P. 1998. Monitoring avian productivity and survivorship site additions, Ninigret National Wildlife Refuge. U.S. Fish & Wildl. Serv. Unpub. Report. 17pp.
- Pawcatuk Watershed Partnership. 1997. The Pawcatuk Watershed Report. EPA, Narragansett, RI.
- Porter, Ellen M., Environmental Specialist. 1999. Personal communication, Regional Planners Conference, Denver, CO.

- Raithel, Christopher. 1999 and 2000. Personal Communications. Rhode Island Department of Environmental Management, Division of Fish and Wildlife. Charlestown, RI.
- Rhode Island Coastal Resources Management Council. 1995. Narrow River Special Area Management Plan, Public Review Document. Wakefield, Rhode Island. 186 pp.
- Rhode Island Coastal Resources Management Council. 1998. Salt Pond Region Special Area Management Plan Public Review Document. 199 pp.
- Rhode Island Department of Administration and Rhode Island Department of Environmental Management. 1992. Ocean State Outdoors: Rhode Island's Comprehensive Outdoor Recreation Plan. Providence, RI.
- Rhode Island Department of Environmental Management, U.S. Fish & Wildlife Service. 1981. A Strategic Plan for the Restoration of Atlantic Salmon to the Pawcatuck River, Rhode Island. Division of Fish and Wildlife. Unpub. Report.
- Rhode Island Department of Environmental Management. 1996. Protecting our Land Resources. Division of Planning and Development. 37 pp.
- Rhode Island National Wildlife Refuge Complex. 1999. Trustom Pond National Wildlife Refuge Least Tern Management Report. Rhode Island NWR Complex, P.O. Box 307, Charlestown, RI. 5 pp.
- Rhode Island State Historic Preservation Commission, 1974. A historic, architectural and archeological investigation of the former Charlestown Naval Air Station and vicinity. Rhode Island Historic Preservation Commission, 150 Benefit St. Providence RI 02903. 28pp.
- Roland, C., R. Woodruff. 1962. History of nesting gulls and terns in Rhode Island 1899-1961. Narragansett Naturalist.
- Roman, C.T., C.L. LaBash, Raposa, K., and G. MacPhee. 1997. Restoration of the Sachuest Point salt marsh (Middletown, RI): Pre-restoration ecological baseline information. Univ. of Rhode Island. Graduate School of Oceanography. 155 pp.
- Savage, Harlin. 1996-97. The Periled Piping Plover. Defenders - The Conservation Magazine of Defenders of Wildlife. p. 6-15.
- Schneider, K.J. and D.M. Pence, eds. Migratory nongame birds of management concern in the Northeast. U.S. Dep. Inter., Fish and Wildl. Serv., Newton Corner, Massachusetts. 400pp.
- Trust for Public Lands. 1998. Local Parks, Local Financing, Vols I & II. San Francisco, CA.
- Trustom Pond National Wildlife Refuge. 1999. Piping Plover Management Report. Ninigret NWR, Route 1A, Shoreline Plaza, P.O. Box 307, Charlestown, RI. 25pp.
- U.S. Census Bureau. 2000. Population estimates. <http://www.census.gov/population/estimates/popest>
- U.S. Dept. of the Interior. 1991. Informal consultation regarding disposition of the Beane Property. Unpubl. Rept. 10pp.
- U.S. Dept. of the Interior. 1998. Notice of one-year petition finding to list the Harlequin Duck (*Histrionicus histrionicus*) in Eastern North America as endangered or threatened. Federal Register vol 63 No. 88 p. 25177-25178.
- University of Rhode Island. 1996. Elevation profiling of eight barrier beaches on Rhode Island's South Shore: September 1995 to August 1996. Graduate School of Oceanography. Unpubl. Rept.
- U.S. Fish and Wildlife Service. 1987. Environment Assessment. Trustom Pond NWR. South Kingstown, RI. 73pp.
- U.S. Fish and Wildlife Service. 1988. Environment Assessment. Trustom Pond NWR. South Kingstown, RI. 45pp.
- U.S. Fish and Wildlife Service. 1989. National Wetlands Inventory, Wetlands of Rhode Island. Boston, MA. 77pp.
- U. S. Fish and Wildlife Service. 1990. Atlantic Coast Joint Venture. 107 pp.
- U.S. Fish and Wildlife Service. 1990. Regional Wetlands Concept Plan, Emergency Wetlands Resources Act. Northeast Region. Newton Corner, MA. 100pp.
- U.S. Fish and Wildlife Service. 1990. Piping plover Management for 1990, A Compatibility Determination at Trustom Pond NWR. Charlestown, RI. 45pp.
- U.S. Fish and Wildlife Service. 1991. Northeast Coastal Areas Study: Significant Coastal Habitats of Southern New England and Portions of Long Island, New York. Charlestown, RI. 249pp.

- U.S. Fish and Wildlife Service. 1991. American Burying Beetle (*Nicrophorus americanus*) Recovery Plan. NE Field Office, Concord, NH. 72pp.
- U.S. Fish and Wildlife Service. 1994. Preliminary Assessment for Sachuest Point. Unpubl. Rept.
- U.S. Fish and Wildlife Service. 1994. An ecosystem approach to fish and wildlife conservation. 14pp.
- U.S. Fish and Wildlife Service. 1994. Northeastern Beach Tiger Beetle (*Cicindela dorsalis dorsalis*) Recovery Plan. Hadley, MA 45pp.
- U.S. Fish and Wildlife Service. 1996. Piping Plover (*Charadrius melodus*) Revised Recovery Plan. Hadley, MA 45pp.
- U.S. Fish and Wildlife Service. Environmental Assessment for Habitat Restoration Project. Ninigret NWR, Charlestown, RI. 25pp.
- U.S. Fish and Wildlife Service. 1997. Banking on Nature: The Economic Benefits to Local Communities of National Wildlife Refuge Visitation. 118pp.
- U.S. Fish and Wildlife Service. 1998. Administrative finding on a petition to list the Eastern North American population of the harlequin duck. Intern. Rpt. 15 pp.
- U.S. Fish and Wildlife Service. 1998. Beach Strand, Habitat at Risk. Service pamphlet.
- U.S. Fish and Wildlife Service. 1999. The Connecticut River Watershed/Long Island Sound Invasive Plant Control Initiative Strategic Plan. Turners Falls, MA. 15 pp.
- U.S. Fish and Wildlife Service. 1999. Report on Archeological and Cultural History of Rhode Island Refuges. Victoria Jacobson. Hadley, MA. 15 pp.
- Vaske, J.J., D.W. Rimmer, and R.D. Deblinger. 1994. The Impact of Different Predator Enclosures on Piping Plover Nest Abandonment. J. Field Ornithol., 65(2):201-209.
- Vickery, P.D. 1988. Distribution and population status of harlequin ducks (*Histrionicus histrionicus*) wintering in eastern north America. Wil. Bull. 100(1):119-126.
- Vickery, P.D. 1993. Habitat selection of grassland birds in Maine. Ph.D. diss., Univ. of Maine, Orono.
- Vickery, P.D., M. L. Hunter, and S.M. Melvin. 1994. Effects of habitat area on the distribution of grassland birds in Maine. Conservation Biology 8(4):1087-1097.
- Vickery, P.D., A. Jones. 1997. Conserving Grassland Birds: Managing agricultural lands including hayfields, crop fields, and pastures for grassland birds. Massachusetts Audubon Society. Lincoln, MA. 17 pages.
- Vickery, P. D., A. Jones. 1997. Conserving Grassland Birds: Managing large grasslands including conservation lands, airports, and landfills over 75 acres for grassland birds. Massachusetts Audubon Society. Lincoln, MA. 17 pages.
- Vickery, P.D., A. Jones. 1997. Conserving Grassland Birds: Managing small grasslands including conservation lands, corporate headquarters, recreation fields, and small landfills for grassland birds. Lincoln, MA. 16 pages.
- Vickery, P.D., A. Jones. 1997. Distribution and Population Status of Grassland Birds in Massachusetts. Pp. 187-200 in Grasslands of Northeastern North America (Peter D. Vickery and Peter W. Dunwiddie, eds.). Massachusetts Audubon Society, Lincoln, MA.
- von Oettingen, Susanna L. 1998. Personal communications. U.S. Fish and Wildlife Service New England Field Office. Concord, NH.
- Walker, Ret. Colonel A. 1995. Historical Perspectives on Establishing Sachuest Point NWR, Middletown, RI. Unpublished Report.
- Wallace, M. 1995. Monitoring avian productivity and survivorship site additions, Ninigret National Wildlife Refuge. USFWS. Unpub. Report. 17 pp.
- Whitmore, R.C. 1981. Structural characteristics of grasshopper sparrow habitat. J. Wildl. Manage. 45:(3) 811-814.
- Zaremba, Robert E., Paul J. Godfrey, and Stephen P. Leatherman. 1979. The ecological effects of off-road vehicles on the beach/backshore (drift line) zone in Cape Cod national Seashore, Massachusetts. Univ. Mass. National Park Service Cooperative Research Unit, report No. 29. 67 pp.
- Zaremba, Robert E., Stephen P. Leatherman, and Paul J. Godfrey. 1980. Effects of off-road vehicles on barrier beach processes: Nauset Spit, Cape Cod National Seashore. Proc. Second Conf. Sci. Res. Natl. Parks; 9:240-248.

# Trust Resources and Other Species and Habitats of Management Concern

## Codes used in Species List

### Global Element Ranks (from The Nature Conservancy)

**G1** – Critically Imperiled globally because of extreme rarity (typically 5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

**G2** – Imperiled globally because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.

**G3** – Rare or uncommon but not imperiled. Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; in terms of occurrences, in the range of 21 to 100.

**G4** – Not rare and apparently secure globally, though it might be quite rare in parts of its range, especially at the periphery; cause for long-term concern. (Usually more than 100 occurrences.)

**G5** – Demonstrably secure globally; widespread and abundant, though it may be quite rare in parts of its range, especially at the periphery.

**GH** – Of historical occurrence throughout its range, - possibly extinct - i.e., formerly part of the established biota with the expectation that it may be rediscovered (e.g., Bachman's warbler).

**GU** – Possibly in peril range-wide, but status uncertain; need more information.

**GX** – Believed to be extinct throughout its range (e.g., Passenger pigeon) with virtually no likelihood that it will be rediscovered.

**G#G#** – Range ranks; insufficient information to rank more precisely.

**G?** – Not yet ranked.

**G#T#** – For infraspecific taxa; the G rank applies to the full species and the T rank applies to the infraspecific taxon.

**G#Q** – Taxonomic status is questionable.

## Federal Status or Authority

**E** – Formally listed as Endangered under the Endangered Species Act of 1973

**T** – Formally listed as Threatened under the Endangered Species Act of 1973

**PE** – Proposed Endangered

**PT** – Proposed Threatened

**C1** – Taxa for which the Service currently has on file substantial information on biological vulnerability and threat(s) to support the appropriateness of proposing to list them as endangered or threatened species

**SA** – Similarity of appearance of species

## State Status

**FE** – Federally Endangered (see above)

**FT** – Federally Threatened (see above)

**E** – State Endangered. Native species in imminent danger of extirpation from Rhode Island. These taxa meet one or more of the following criteria: (1) a species currently under review for listing by the U.S. Fish and Wildlife Service as Federally endangered or threatened; (2) a species with 1-2 known or estimated total populations in the state; (3) a species apparently globally rare or threatened, and estimated to occur as approximately 100 or fewer populations range-wide.

**T** – State Threatened. Native species which are likely to become state endangered in the future if current trends in habitat loss or other detrimental factors remain unchanged. These taxa meet one or more of the following criteria: (1) a species with 3-5 known or estimated populations in the state; (2) a species with more than 5 known or estimated populations in the state, but exhibiting particular vulnerability to habitat loss.

**C** – Concern. Native species which do not apply under the above categories but are additionally listed due to various factors or rarity and/or vulnerability; or, species which may warrant listing in higher categories but status information is presently not well known.

**SH** – Native species which have been documented for the state during the last 100 years but for which current occurrences are unknown. When known, the year of the last documented occurrence is included.

## State Element Ranks (from the Nature Conservancy and/or State Heritage Programs)

Numeric Rank: Based primarily on the number of occurrences of the species in the state.

**S1** – Critically imperiled in state (usually 5 or fewer occurrences); especially vulnerable to extirpation in the state.

**S2** – Imperiled in state (usually 6 to 20 occurrences).

**S3** – Rare or uncommon in state (usually 21 to 100 occurrences).

**S4** – Widespread, abundant and apparently secure in the state, but with cause for long-term concern (usually more than 100 occurrences).

**S5** – Widespread, abundant and demonstrably secure in state.

**S?** – Not yet ranked in the state.

**SU** – Unrankable or uncertain status due to lack of information; possibly in peril

**SE** – Exotic: an exotic established in the state.

**SA** – Accidental or casual in state (infrequent and far outside usual range).

**SH** – Historical: species occurred historically in the state (with the expectation that it may be extant and rediscovered), generally not having been verified in the past 20 years.

**SX** – Apparently extirpated from state.

**SN** or **SZN** – Regularly occurring, usually migratory and typically non-breeding, species for which no significant or effective habitat conservation measures can be taken in the state; no definable occurrences.

*For species with distinct breeding (B) and non-breeding (N) populations, a breeding status SRANK can be coupled with its complementary non-breeding SRANK, separated by a comma, e.g. S2B, S3N or S1B, SHN.*

**SR** – Reported from state, but without persuasive documentation; species may be misidentified.

**SRF** – Reported falsely; erroneously reported as occurring in the state and error has persisted in the literature.

**SP** – Potentially occurs in the state, but no occurrences reported.

**.1** – Species documented from a single location

### Occurrence/Occasional Use (Seasonal Use)

Codes indicating the status of a species population within a specific habitat complex or other area.

**+** - Known to occur in the area; seasonal use not specified

**H** - Known to occur historically in the area but not since 1970

**B** - Breeds in the area

**M** - Migrates through the area and has identifiable migratory stopover or staging areas within the watershed

**W** - Overwinters in the area

**P** - Primarily pelagic

**I** - Introduced or re-introduced

### Refuges

Indicates occurrence of the species on existing National Wildlife Refuges in Rhode Island. A = all Rhode Island Refuges, B = Block Island, N = Ninigret, C = Chafee, T = Trustom Pond, S = Sachuest Point.

### Seasonal Relative Abundance Codes (b,s,S,F,W)

from the Birds of the National Wildlife Refuges of Rhode Island.

Season: b= breeding, s= spring, S= summer, F= Fall, W= Winter.

Relative abundance: a = abundant, c = common, u = uncommon, o = occasional, r = rare.

### Population/ Breeding Bird Atlas (BBA)

Known occurrences or populations in Rhode Island, from Natural Heritage Program. For breeding birds, figure indicates number of probable or confirmed breeding bird atlas blocks in the state.

Scientific Name	Common Name(s)	Global	Federal	RI Rank	RI Status	Sea. Use	Refuges	b	s	S	F	W	Pop./B BA	Source/Justification
<b>ANIMALS</b>														
<b>INVERTEBRATES</b>														
<b>ARTHROPODA</b>														
<b>INSECTA</b>														
<u>ODONATA (Dragonflies and Damselflies):</u>														
<i>Williamsonia lintneri</i>	ringed boghaunter	G2	C2	S2	C									former candidate/globally imperiled
<i>Enallagma pictum</i>	scarlet bluet	G3												globally rare
<i>Enallagma recurvatum</i>	barrens bluet damselfly	G3	3C	S2	C									former candidate/globally rare
<u>COLEOPTERA (Beetles):</u>														
<i>Cicindela d. dorsalis</i>	northeastern beach tiger beetle	G4T1T2	T	SX	SH(1978)									fed. listed/globally imperiled
<i>Nicrophorus americanus</i>	American burying beetle	G1	E	S1	FE									fed. listed/globally critically imperiled
<i>Lordithon niger</i>	black lordithon rove beetle	G1	C2	S1	C									former candidate/globally critically imperiled
<u>LEPIDOPTERA (Butterflies and Moths):</u>														
<i>Speyeria idalia</i>	regal fritillary butterfly	G3	C2	SX	SH(1990)									former candidate/globally rare
<i>Mitoura hesseli</i>	Hessel's hairstreak	G3G4	3C	S2S3	C									former candidate
<b>MEROSTOMATA</b>														
<i>Limulus polyphemus</i>	horseshoe crab													R5 Refuge List/important forage species for shorebirds
<b>VERTEBRATES</b>														
<b>REPTILES</b>														
<u>TESTUDINES (Turtles):</u>														
<i>Caretta caretta</i>	loggerhead sea turtle	G3	T	S?	FT									fed. listed./globally rare, occurs in RI waters
<i>Chelonia mydas</i>	green sea turtle	G3	T	S?	FT									fed. listed./globally rare, occurs in RI waters
<i>Dermochelys coriacea</i>	leatherback sea turtle	G3	E	S?	FE									fed. listed./globally rare, occurs in RI waters
<i>Lepidochelys kempii</i>	Kemp's ridley sea turtle	G1	E	S?	FE									fed. listed./globally rare, occurs in RI waters
<i>Malaclemys t. terrapin</i>	northern diamondback terrapin	G5T5	C2	S1	ST									former candidate

Scientific Name	Common Name(s)	Global	Federal	RI Rank	RI Status	Sea. Use	Refuges	b	s	S	F	W	Pop./B BA	Source/Justification
<b>FISH</b>														
<b>Catadromous</b>														
<i>Anguilla rostrata</i>	American eel	G5												catadromous/R5 Refuge List
<b>Anadromous</b>														
<i>Alosa aestivalis</i>	blueback herring	G5												anadromous/R5 Refuge List
<i>Alosa pseudoharengus</i>	alewife	G5												anadromous/R5 Refuge List
<i>Alosa sapidissima</i>	American shad	G5												anadromous/R5 Refuge List
<i>Morone saxatilis</i>	striped bass	G5												anadromous/R5 Refuge List
<i>Salmo salar</i>	Atlantic Salmon	G5												anadromous/R5 Refuge List
<b>Marine &amp; Estuarine Interjuris. Fish</b>														
<i>Paralichthys dentatus</i>	summer flounder	G?												interjurisdictional/R5 Refuge List
<i>Tautoga onitis</i>	tautog	G?												interjurisdictional/R5 Refuge List
<i>Pleuronectes americanus</i>	winter flounder	G5?												interjurisdictional/R5 Refuge List
<i>Pomatomus saltatrix</i>	bluefish	G?												interjurisdictional/R5 Refuge List
<i>Cynoscion regalis</i>	weakfish	G?												interjurisdictional/R5 Refuge List
<b>BIRDS</b>														
<u>GAVIIFORMES (Loons):</u>														
<i>Gavia immer</i>	common loon	G5				M/W	A							non-game bird man. concern
<u>CICONIIFORMES (Hérons, Ibises, and Storks):</u>														
<i>Botaurus lentiginosus</i>	American bittern	G4		S1B, S1N		B/M/W	N,T,S	y	u	u	u	o	2	non-game bird man. concern
<i>Ixobrychus exilis</i>	least bittern	G5		S2B, S2N		B/M	T,N,S	y	o	o	o		5	non-game bird man. concern
<u>ANSERIFORMES (Waterfowl):</u>														
<i>Podiceps auritus</i>	horned grebe	G5				M/W	A							NAWCA priority
<i>Podilymbus podiceps</i>	pied-billed grebe	G5				B/M/W	A	y	c	o	c	u		non-game bird man. concern
<i>Branta bernicla</i>	brant	G5				M/W	A					u	u	NAWCA priority/NAS Watchlist
<i>Aix sponsa</i>	wood duck	G5				B/M/W?	T,N,C	y	u	u	u	r	48	NAWCA priority

Appendix A

Scientific Name	Common Name(s)	Global	Federal	RI Rank	RI Status	Sea. Use	Refuges	b	s	S	F	W	Pop./B BA	Source/Justification
<i>Anas acuta</i>	northern pintail	G5				M/W	T		u			o		NAWCA high priority/R5 Refuge List
<i>Anas platyrhynchos</i>	mallard	G5				B/M/W	A	y	c	c	a	c	79	NAWCA high priority
<i>Anas rubripes</i>	American black duck	G4				B/M/W	A	y	c	c	c	a	42	NAWCA high priority/R5 Refuge List/NAS Watchlist/PIF SNE globally important
<i>Aythya collaris</i>	ring-necked duck	G5				M/W	N,T,C		u			o		NAWCA priority
<i>Aythya valisineria</i>	canvasback	G5				M/W	A		c	o	c	o		NAWCA priority
<i>Aythya americana</i>	redhead	G5				M/W	A		u			o		NAWCA priority
<i>Aythya marila</i>	greater scaup	G5				M/W	A		c	o	c	c		R5 Refuge List
<i>Aythya affinis</i>	lesser scaup	G5				M/W	A		o		o	o		R5 Refuge List
<i>Histrionicus histrionicus</i>	harlequin duck	G5				M/W	S		u		u	u		former candidate
<i>Somateria mollissima</i>	common eider	G5				B?/M/W	A		u		u	u		NAWCA priority
<i>Melanitta nigra</i>	black scoter	G5				M/W	A		c	o	c	c		R5 Refuge List
<i>Melanitta fusca</i>	white-winged scoter	G5				M/W	A		c	o	c	c		R5 Refuge List
<i>Melanitta perspicillata</i>	surf scoter	G5				M/W	A		c	o	c	c		R5 Refuge List
<u>FALCONIFORMES (Diurnal Birds of Prey):</u>														
<i>Accipiter gentilis</i>	northern goshawk	G5		S1B,S2 N	C	M/W	A		r		r	r	3	former candidate
<i>Buteo lineatus</i>	red-shouldered hawk	G5		S1B,S1 N		M	A		o	o	o		12	non-game bird man. concern
<i>Circus cyaneus</i>	northern harrier	G5		S1B,S3 N		B/M/W	A		u	u	u	o	3	non-game bird man. concern
<i>Falco peregrinus</i>	peregrine falcon	G3		SZN	?	M	A		r	r	o			former fed. listed
<i>Haliaeetus leucocephalus</i>	bald eagle	G3G4	T	S1N	FT	M	A		r		o	r		fed. listed
<u>GRUIFORMES (Rails, Cranes and Allies):</u>														
<i>Rallus longirostris</i>	clapper rail	G5				B/M	N		r	r	r	r		NAWCA priority/declining

Scientific Name	Common Name(s)	Global	Federal	RI Rank	RI Status	Sea. Use	Refuges	b	s	S	F	W	Pop./B BA	Source/Justification
<u>CHARADRIIFORMES (Shorebirds, Gulls and Alcids):</u>														
<i>Charadrius melodus</i>	pipin plover	G3	T	S1B,S1N	FT	B/M	T,N	y	o	u	o		7	fed. listed
<i>Charadrius vociferus</i>	killdeer	G5				B/M	A	y	u	u	u	o	55	ISS declining/R5 Refuge List
<i>Pluvialis dominica</i>	lesser golden-plover	G5				M	A	r	r	o				NAWCA priority
<i>Bartramia longicauda</i>	upland sandpiper	G5		S1B,S1N		B/M	A	r	r	r			3	non-game bird man. concern/PIF SNE regionally important
<i>Calidris alba</i>	sanderling	G5				M/W	A	c	u	c	c			ISS declining/R5 Refuge List
<i>Calidris canutus</i>	red knot	G5				M	A	o	o	r				ISS declining/R5 Refuge List/NAS Watchlist
<i>Calidris fuscicollis</i>	white-rumped sandpiper	G5				M	A	o	o	a				NAWCA priority
<i>Calidris himantopus</i>	stilt sandpiper	G5				M	A	r	o	r				NAS Watchlist
<i>Calidris maritima</i>	purple sandpiper	G5				M/W	A	c	o	c				ISS declining/R5 Refuge List
<i>Calidris minutilla</i>	least sandpiper	G5				M	A	a	a	c				ISS declining/R5 Refuge List
<i>Calidris pusilla</i>	semipalmated sandpiper	G5				M	A	a	a	u				ISS declining/R5 Refuge List
<i>Catoptrophorus semipalmatus</i>	willet	G5		S1B,S3N	C	B/M	A	r	r				1	NAS Watchlist
<i>Limnodromus griseus</i>	short-billed dowitcher	G5				M	A	c	c	u				ISS declining/R5 Refuge List/NAS Watchlist
<i>Limosa haemastica</i>	Hudsonian godwit	G5				M	?							NAWCA priority
<i>Numenius phaeopus</i>	whimbrel	G5				M	A	o	o					ISS declining/R5 Refuge List
<i>Phalaropus tricolor</i>	Wilson's phalarope	G5				M	A	r	r					NAWCA priority
<i>Tryngites subruficollis</i>	buff-breasted sandpiper	G4				M	A	r	r					NAS Watchlist
<i>Pluvialis squatarola</i>	black-bellied plover	G5				M	A	c	u	c	o			ISS declining/R5 Refuge List
<i>Scolopax minor</i>	American woodcock	G5				B/M	N,T	y	u	u	u	r	35	ISS declining/R5 Refuge List/PIF SNE globally important
<i>Sterna antillarum</i>	least tern	G4		S2B,S2N	ST	B/M	A	y	u	c	u		11	state listed species, nesting managed on refuge
<i>Sterna dougallii</i>	roseate tern	G5	E	SHB,S2N	FE	B?/M	A	u	u	u			3	fed. listed
<i>Sterna hirundo</i>	common tern	G5				B/M	A	y	u	c	u		23	non-game bird man. concern
<u>CUCULIFORMES (Cuckoos and Allies):</u>														
<i>Coccyzus erythrophthalmus</i>	black-billed cuckoo	G5				B/M	A	y	u	u	u		44	PIF SNE regionally important
Rhode Island National Wildlife Refuge Complex CCPs – May 2002														

Appendix A

Scientific Name	Common Name(s)	Global	Federal	RI Rank	RI Status	Sea. Use	Refuges	b	s	S	F	W	Pop./BA	Source/Justification
<b>STRIGIFORMES (Owls):</b>														
<i>Asio flammeus</i>	short-eared owl	G5				M/W	A		u			u	o	non-game bird man. concern/NAS Watchlist
<b>PICIFORMES (Woodpeckers and Allies):</b>														
<i>Colaptes punctigula</i>	northern flicker	G5				B/M/W	N,T,S,C	y	c	c	c	u	118	non-game bird man. concern
<i>Melanerpes erythrocephalus</i>	red-headed woodpecker	G5		S1B,S1N		B/M	T,N	r		r				NAS Watchlist/PIF SNE globally important
<b>PASSERIFORMES (Perching Birds):</b>														
<i>Contopus virens</i>	eastern wood-pewee	G5				B/M	N,T	y	u	o	u		72	PIF SNE regionally important
<i>Catharus fuscescens</i>	veery	G5				B/M	N,T,C	y	o	o	o		86	non-game bird man. concern
<i>Hylocichla mustelina</i>	wood thrush	G5				B/M	N,T,C	y	u	c	u		97	NAS Watchlist/PIF SNE globally important
<i>Vireo flavifrons</i>	yellow-throated vireo	G5				B/M	?							NAWCA Priority
<i>Dendroica caerulescens</i>	black-throated blue warbler	G5		S1B,S3N	SE	B/M	A	r	r	o				NAS Watchlist/PIF SNE globally important
<i>Dendroica cerulea</i>	cerulean warbler	G4		S1B,S2N	ST	B/M							2	former candidate/NAS Watchlist/PIF SNE globally important
<i>Dendroica discolor</i>	prairie warbler	G5				B/M	A	y	u	u	u		80	NAS Watchlist/PIF SNE globally important
<i>Helmitheros vermivorus</i>	worm-eating warbler	G5		S2B,SZ N	C	B/M	A			r	r		8	non-game bird man. concern/NAS Watchlist/PIF SNE globally important
<i>Protonotaria citrea</i>	prothonotary warbler	G5		S1B,S1N	C	B/M	A	r						NAS Watchlist
<i>Seiurus motacilla</i>	Louisiana waterthrush	G5				B/M							19	non-game bird man. concern/PIF SNE regionally important
<i>Vermivora chrysoptera</i>	golden-winged warbler	G4		SXB,S2N	SH	M	A	r	r	r				non-game bird man. concern/NAS Watchlist/PIF SNE globally important
<i>Vermivora pinus</i>	blue-winged warbler	G5				B/M	A	y	c	c	u		80	non-game bird man. concern/PIF SNE regionally important
<i>Wilsonia canadensis</i>	Canada warbler	G5				B/M	A	y	o	o	o		19	PIF SNE globally important
<i>Icteria virens</i>	yellow-breasted chat	G5				B/M	A	r	r	r				species off concern at RI refuges
<i>Spizella pusilla</i>	field sparrow	G5				B/M	N,T,C,S	y	u	u	u	o	72	non-game bird man. concern/PIF SNE regionally important
<i>Ammodramus caudacutus</i>	saltmarsh sharp-tailed sparrow	G5				B/M	A	y	o	u	u		26	NAS Watchlist/PIF SNE globally important
<i>Ammodramus henslowii</i>	Henslow's sparrow	G4		SX	SH(1940)									former candidate/PIF SNE globally important
<i>Ammodramus maritimus</i>	seaside sparrow	G4		S2B,SZ N		B/M	A	y	o	u	u		10	NAS Watchlist/PIF SNE globally important
<i>Ammodramus nelsoni</i>	Nelson's sharp-tailed sparrow	G5				M								NAS Watchlist

Scientific Name	Common Name(s)	Global	Federal	RI Rank	RI Status	Sea. Use	Refuges	b	s	S	F	W	Pop./B BA	Source/Justification
<i>Ammodramus savannarum</i>	grasshopper sparrow	G4		S1B,S1N		B/M	N,T	r	r	r			4	non-game bird man. concern
<i>Dolichonyx oryzivorus</i>	bobolink	G5				B/M	T,S,N	y	u	c	u		30	non-game bird man. concern/NAS Watchlist/PIF SNE globally important
<i>Sturnella magna</i>	eastern meadowlark	G5				B/M/W	S,T,N,C	y	c	c	c	u	33	non-game bird man. concern
<i>Pheucticus ludovicianus</i>	rose-breasted grosbeak	G5				B/M	A		o	o			53	PIF SNE regional priority
<b>MAMMALS</b>														
<b>Terrestrial mammals</b>														
<i>Sylvilagus transitionalis</i>	New England cottontail rabbit	G4		S2	C	R								former candidate
<i>Microtus pennsylvanicus proreus</i>	Block Island meadow vole	G5T1		G5T2Q		R								former candidate
<b>Whales</b>														
<i>Balaenoptera physalus</i>	finback whale	G2	E			P/M								fed. listed species in RI waters
<i>Eubalaena glacialis</i>	northern right whale	G2	E			P/M								fed. listed species in RI waters
<i>Megaptera novaeangliae</i>	humpback whale	G3	E			P/M								fed. listed species in RI waters
<b>Seals</b>														
<i>Halichoerus grypus</i>	gray seal	G4				W								marine mammal occurring on refuge
<i>Phoca groenlandica</i>	harp seal	G5				W								marine mammal occurring on refuge
<i>Phoca vitulina</i>	harbor seal	G5				W								marine mammal occurring on refuge
<b>VASCULAR PLANTS</b>														
<b>ANGIOSPERMS (Flowering Plants):</b>														
<i>Carex polymorpha</i>	variable sedge	G3		S1	SE								1	former candidate
<i>Scirpus longii</i>	Long's bulrush	G2		S1	SE								1	former candidate
<i>Scleria pauciflora var. caroliniana</i>	few-flowered nutrush	G5		S1	ST								3	NEPCoP regionally rare, occurs on refuge
<i>Scleria triglomerata</i>	whip nutrush	G5		S1	ST								2	NEPCoP regionally rare, occurs on refuge
<i>Isotria medeoloides</i>	small whorled pogonia	G2G3	E	S1	FE								1	fed. listed
<i>Platanthera ciliaris</i>	yellow fringed orchid	G5		S1	SE								1	NEPCoP regionally rare, occurs on refuge

Appendix A

Scientific Name	Common Name(s)	Global	Federal	RI Rank	RI Status	Sea. Use	Refuges	b	s	S	F	W	Pop./B BA	Source/Justification
<i>Amaranthus pumilus</i>	seabeach amaranth	G2	T	SH	SH								0 (1897)	fed. listed
<i>Polygonum glaucum</i>	seabeach knotweed	G3		S1									3	NEPCoP regionally rare, occurs on refuge
<i>Cardamine longii</i>	Long's bittercress	G3G4Q		S1	SE								1	former candidate
<i>Eupatorium leucolepis var. novae-angliae</i>	New England boneset	G5T1		S1	SE								5	former candidate
<i>Liatris scariosa var. novae-angliae</i>	New England blazing-star	G5?T3		S1	SE								4	former candidate
<i>Helianthemum dumosum</i>	bushy rockrose	G3		S1	SE								4	former candidate
<i>Hypericum adpressum</i>	creeping St. John's-wort	G2G3		S2	ST								4	former candidate
<i>Agalinis acuta</i>	sandplain gerardia	G1	E	S1	FE								1	fed. listed
<b>NATURAL COMMUNITIES</b>														
	Coastal Salt Pond/Marsh	G4		S3										
	Southern New England Salt Marsh	G5		S4										
	Sea Level Fen	G2G3		S1										
	Coastal Sand Dune Community	G5		S3										
	Morainic Grassland	G2		S1										
	New England Coastal Plain Pondshore	G3		S2										
	New England Pitch Pine Scrub Oak Barren	G2		S1										
<b>ANIMAL CONCENTRATION AREAS</b>														
	Anadromous Fish Concentration													
	Migratory Shorebird Concentration Area													
	Seal Haulout Area													
	Waterbird Nesting Colony													
	Waterfowl Concentration Area													

Refuge: occurrence of birds on the Rhode Island National Wildlife Refuges from Birds of the National Wildlife Refuges of Rhode Island, 1996.

Refuge locations: N=Ninigret, B=Block Island, T=Truston Pond, C=Chafee Refuge, S=Sachuest Point, A = found on all Rhode Island Refuges

b=breeding, s = spring, S= summer, F=fall, W= winter; relative abundance: a=abundant, c=common, u=uncommon, o=occasional, r=rare;

Pop./BBA =known occurrences or populations in state from Natural Heritage Program; for breeding birds = number of probable or confirmed breeding bird atlas blocks in state.

## Appendix B

# Response to Public Comments on Draft CCP/EA (December 2001)

## Summary of, and the Service's Response to, Public Comments Received on the Draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for the Rhode Island National Wildlife Refuge Complex.

December 2001

### Introduction

In December 2000, we completed the Rhode Island National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA). The Draft CCP/EA outlined four alternative scenarios for managing the five National Wildlife Refuges in Rhode Island over the next 15 years. We identified Alternative B as the "Service's Proposed Action" in this document. The Draft CCP/EA was released for 51 days of public review during January 10 to March 2, 2001.

We have evaluated all written and oral correspondence received during the public comment period. This document is our response to the substantive comments we received and shows how our Proposed Action alternative has changed as a result. Based on the analysis in the Draft CCP/EA, and our evaluation of public comments, we have modified the original Service's Proposed Action to include the following four changes:

- We propose to complete a deer management plan and accompanying environmental assessment (EA) for the Refuge Complex by the end of calendar year 2002. We would specifically evaluate public deer hunting as one alternative for managing deer populations and as a means of supporting a priority public use. This is a change from Alternative B in that it will be a consolidated plan for all five refuges, and would be done sooner than originally planned.
- We propose to expand the acquisition boundaries of each refuge as identified in the Land Protection Plan (LPP) for the Refuge Complex. The LPP is a refinement of the land protection proposal presented in Alternative B, and was developed after consideration of public and partner comments on the Draft CCP/EA and recent changes in land status. It identifies the specific parcels proposed for Service acquisition, their priority, and the protection option recommended. The LPP is currently undergoing a 30-day comment period by the landowners within the proposed acquisition boundary. Once this review is complete and any needed changes are incorporated, it will be reviewed and approved by our Director.
- We propose to allow waterfowl hunting on the John H. Chafee Refuge according to state and refuge regulations beginning in the fall 2003 season. This opportunity was evaluated in Alternative D of the Draft CCP/EA. Based on public and partner comments, we propose this opportunity in support of a priority public use that is also an historic and traditional use in this area.
- We propose to develop a cooperative resource protection and public use plan with our Block Island partners by the end of calendar year 2003. This is sooner than originally planned in Alternative B, and is in response to our island partners' concern about potential land use changes in the near future. Further, our proposals in Alternative B for infrastructure to support wildlife observation, photography, environmental education and interpretation would be postponed and re-evaluated after completing the cooperative plan.

Our Regional Director will issue a Finding of No Significant Impact (FONSI) on our revised proposed action, after our Director reviews and approves the Land Protection Plan (see "Land Ownership" discussion below), and after the public has an opportunity to comment on two new compatibility determinations for management trapping and waterfowl hunting. The FONSI is the decision document, completing the planning phase of the CCP process, and allowing us to begin the implementation phase.

### Summary of Comments Received

We received a total of 447 public responses by way of oral testimony at public hearings or through submission of written or electronic documents.

We held three formal public hearings as follows:

February 6, 2001, Middletown High School, Middletown, RI  
February 7, 2001, South Kingstown High School, South Kingstown, RI  
February 8, 2001, Block Island School, New Shoreham (Block Island), RI.

A total of 45 people presented oral testimony at the public hearings; 16 at Middletown, 17 at South Kingstown and 12 at Block Island. Some of these people submitted their testimony in writing as well. Other written responses also came in the form of letters and electronic mail.

We received 4 written responses from local and State Governments, including:

- Town of Charlestown
- Town of Narragansett
- Town of New Shoreham
- Rhode Island Department of Environmental Management, Division of Fish and Wildlife (RI DEM)

We received 11 written responses from local and national conservation and recreation organizations, including:

- Animal Protection Institute
- Audubon Society of Rhode Island
- Block Island Conservancy
- Federated Rhode Island Sportsmen's Club, Inc.
- Friends of the National Wildlife Refuges of Rhode Island (2 responses)(Friends Group)
- Mid Island Surfcasters
- National Trappers Association, Inc.
- Newport County Salt Water Fishing Club, Inc.
- North Light Commission
- South Kingstown Bridle Lanes Association

The South Kingstown Bridle Lanes Association letter included a petition with 76 signatures.

We received 373 written responses from individuals, including:

- 243 written letters
- 130 electronic mailings

One of the letters we received was a petition signed by 14 South County residents. A second letter was sent by the Chairman of the Arnolda Improvement Corporation (AIC) on behalf of the AIC, FWA Heirs Inc., and the Marshneck Gun Club. Advocates of waterfowl hunting on Chafee Refuge comprised the majority of correspondence from individuals with a total of 324 letters received via electronic and regular mail. Some of these individuals spoke at the public hearing and also submitted their statements in writing.

In the following discussion, we identify the issues raised and our response to those issues. We make some references to the full-text version of the "Rhode Island National Wildlife Refuge Complex, Draft Comprehensive Conservation Plan and Environmental Assessment, December 2000." To receive a copy of the full-text version you have several options. It can be accessed on the Services National Library website at <http://training.fws.gov/ccp.htm>, or obtained in either CD or hard copy format from the Rhode Island National Wildlife Refuge Complex office.

The contact information is as follows:

Rhode Island National Wildlife Refuge Complex  
Charlie Vandemoer, Refuge Manager  
P.O. Box 307, 3769 D Old Post Road  
Charlestown, RI 02813

Phone: (401) 364-9124  
Fax: (401) 364-0170  
Email: R5RW\_RINWR@fws.gov

## Priority Public Uses

### Hunting – General

#### Comments

The Rhode Island Department of Environmental Management, Division of Fish and Wildlife (RI DEM), the National Trappers Association, Inc., the Federated Rhode Island Sportsmen's Club, Inc., Mid Island Surfcasters, and many individuals were critical of the Service's Proposed Action in the Draft CCP/EA because of the lack of hunting opportunities on the Refuge Complex. The RI DEM states, "Hunting on the Refuges is an issue of significant importance to the RI DEM." Their view is that hunting supports a priority public use and is an effective management tool to control overabundant species. The National Trappers Association, Inc. stated that the Draft CCP/EA showed extreme bias against hunting and that restrictions on hunting are extremely detrimental to the ecosystem. The RI DEM and Mid Island Surfcasters specifically mentioned their support for Alternative D which would open up the refuges to hunting after completion of an environmental assessment (EA), Federal Register Notice, and a Hunt Plan. The RI DEM offered their assistance in preparing these documents and implementing hunt programs, and encouraged the Service to begin the process as soon as possible. Many individuals were generally concerned about the lack of hunting opportunities on the Refuge Complex or with the closing of certain refuge lands to hunting.

Opposition to hunting on the Refuge Complex was expressed by the Animal Protection Institute, the Friends Group, and several individuals. The Friends Group feels that the refuges are too small to support public hunting safely, and that hunting for population management (e.g., deer hunting) should only be carried out by professional hunters. The Animal Protection Institute is opposed to killing wildlife for commercial or recreational purposes on national wildlife refuges. This organization states that hunting is inconsistent with Service policies on wildlife conservation, and biological integrity, diversity, and environmental health. They also expressed concern with the lack of wildlife population data to guide decisions on management. Some individuals were opposed to hunting for ethical reasons or due to a concern that refuge hunting areas would be too close to private residences, creating a safety hazard. Other individuals expressed concern that because of the relatively small refuge acreages, a hunt program would necessarily preclude other priority public uses from occurring at the same time.

#### Response

The National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act) lists hunting as one of six priority, wildlife-dependent public uses to receive enhanced and preferential consideration in refuge planning and management. In addition to hunting, other priority uses include fishing, wildlife observation and photography, environmental education and interpretation. Our mandate is to provide high-quality opportunities for these priority uses where they are compatible with respective refuge purposes, goals, and other management priorities.

The Refuge Improvement Act does not establish a hierarchy among the six priority uses; rather, Refuge Managers are strongly encouraged to strive for a balanced program and avoid favoring one priority use over another unless warranted by public interest and demand, or because there are limited opportunities on other local land ownerships, or because of inadequate resources to commit to maintaining a high quality program. The Refuge Improvement Act recognizes that not every priority use can be accommodated on every refuge.

Currently, the only part of the Refuge Complex open to hunting is a 20-acre upland parcel on Trustom Pond Refuge, off Matunuck Schoolhouse Road, open to migratory bird hunting. Other hunting programs have not been implemented on the Refuge Complex for reasons discussed in the Draft CCP/EA (Chapter 3, page 3-30). These reasons include: a limited contiguous land base (Chafee and Block Island refuges); proximity of human habitation and facilities (Chafee, Ninigret and Trustom Pond refuges); a deed restriction prohibiting hunting on 151 acres (Trustom Pond Refuge); impenetrable vegetation precluding access to huntable species (Sachuest Point Refuge); little information on wildlife populations (all refuges); impacts on other priority public uses (all refuges); and a lack of staffing and funding to develop and manage a high quality program (all refuges).

Some of these concerns, such as a small land base, proximity to residences, lack of population and habitat information, and limited staffing, would be mitigated in the future with implementation of the actions and strategies in our Proposed Action. These would include increases in land acquisition, staffing, and inventory and monitoring of habitat conditions.

In response to public comments favoring hunting and RI DEM requests for a deer hunting program on the refuges, our new Proposed Action includes development in 2002 of a Refuge Complex Deer Management Plan and accompanying environmental assessment (EA). This plan would cover all five Rhode Island Refuges, and would be completed in cooperation with RI DEM. It would evaluate alternatives for managing deer on the Refuge Complex, including opportunities for a public hunt program. Refuge areas that meet certain criteria would be evaluated further to determine if they could support a high quality public hunt. The criteria would include, but not be limited to, the following: 1) an area of sufficient size to insure public safety; 2) an area that can be partitioned in time or space so as not to significantly affect other priority public uses; 3) an area that provides reasonable opportunities for a successful hunt; 4) an area that is consistent with or complements other hunted areas in town; and 5) available information suggests a huntable deer population exists.

Development of the Refuge Complex Deer Management Plan would include public review and comment, after which, the Regional Director would decide which alternative to implement. If the selected alternative includes a public hunt, a Refuge Complex Hunt Plan would be prepared and annually updated, and Refuge specific hunt regulations would be published in the Federal Register.

## Waterfowl Hunting

### Comments

We received 324 letters and electronic mail from individuals stating “...opposition to the proposed closure of Chafee Refuge to hunting in general, and waterfowl hunting in particular. The Lower Narrow River and Pettaquamscutt Cove has always been historically open to waterfowl hunting.” This same letter was submitted by the Federated Rhode Island Sportsman’s Club, Inc. The letter references the Refuge Improvement Act which identified hunting as a priority public use on national wildlife refuges. RI DEM noted these same concerns and also indicated the Proposed Action in the Draft CCP/EA had “conflicting statements” on whether or not waterfowl hunting would actually occur on Chafee Refuge. They point out that, in describing Alternative B, we discuss the need to develop a waterfowl management plan to address waterfowl resting habitat, “...while also continuing opportunities for hunting,” but when describing the priority public uses we would allow on the refuge, hunting was not proposed. One individual expressed concern that we should do more to improve the habitat for wintering waterfowl at Chafee Refuge because a “no hunting rest area” for waterfowl, “...does nothing to increase the winter carrying capacity of waterfowl,” nor does it “...have any effect on Black Duck populations or winter survival.”

RI DEM also stated that our proposed waterfowl hunting on Ninigret Refuge in Coon Cove is overstated since the presence of the invasive plant *Phragmites* has degraded the site. They recommend removing the *Phragmites*, allowing the marsh to restore, and then allow access by boat to a hunting blind on shoreline.

Several individuals wrote that all refuges should be open to waterfowl hunting.

### Response

We welcome this opportunity to clarify the misinformation over waterfowl hunting in the Pettaquamscutt Cove area, including Chafee Refuge. We believe some of the confusion was generated over a map we presented in the Draft CCP/EA (Chapter 3, Map 3-17, page 3-76) which may have falsely indicated to some readers the Service has authority over tidal waters. In Rhode Island, the Service has no jurisdiction or management authority over lands below mean high water; lands below mean high water fall within the jurisdiction of the State of Rhode Island. In light of this, the vast majority of waterfowl hunting in the lower Narrow River and Pettaquamscutt Cove occurs on state lands under state regulations administered by RI DEM.

Chafee Refuge, that is, lands above mean high water in the various small tracts depicted on Map 1-6 (Chapter 1, page 1-21) has never been open to hunting since its establishment in 1988 for the reasons noted above in the general hunting discussion. However, in response to the extensive public comments received, our new Proposed Action includes opening Chafee Refuge to waterfowl hunting under state and refuge regulations in the fall of 2003. This opportunity is fully compatible with refuge purposes, goals, and objectives and would complement the waterfowl hunting tradition on adjacent state waters. A Hunt Plan would be developed, and updated annually, and we would publish specific refuge regulations in the Federal Register by 2003.

The recommendation to RI DEM and respective towns to work with us cooperatively in developing a Pettaquamscutt Cove Waterfowl Management Area Plan in 2003 is still part of our Proposed Action. This plan would regard Pettaquamscutt Cove as a single management unit within which to evaluate and designate waterfowl resting habitat, identify waterfowl habitat restoration opportunities, and maintain waterfowl hunting opportunities. Through development of this area management plan, and consideration of proposed future land acquisition and protection by all parties, the Service would be better able to identify opportunities to improve habitat quality for waterfowl and maintain a high quality waterfowl hunting experience on refuge lands.

On Ninigret Refuge, we believe there is an opportunity for a high quality waterfowl hunting in Coon Cove once we implement *Phragmites* control work to restore the marsh and improve the quality of habitat for waterfowl. We would incorporate this area into the Hunt Plan once the site is improved.

On Trustom Pond Refuge, our Proposed Action maintains the existing migratory bird hunt on the 20-acre upland off Matunuck Schoolhouse Road, which is primarily a resident goose hunt. The pond would remain closed to waterfowl hunting.

Sachuest Point would remain closed to waterfowl hunting in our Proposed Action as only marginal opportunities exist above mean high water, and the impacts on other, established priority public uses, such as wildlife observation, are too great. Thousands of birders come to observe wintering harlequin duck from the refuge shoreline during the same time state lands are open to sea duck hunting. Our Proposed Action recommends to RI DEM implementation of a shoreline waterfowl hunting closure at Sachuest Point on the state lands below mean high water to further enhance this rare opportunity to view harlequin ducks.

On Block Island Refuge, waterfowl hunting opportunities would be addressed in the cooperative resource protection and public use and access plan to be developed with our Block Island partners in 2003 (see Wildlife Observation for Block Island below).

## Fishing

### Comments

We received several comments supporting the existing fishing programs at Sachuest Point, Chafee, and Block Island refuges. The Newport County Salt Water Fishing Club and several individuals expressed concern with restrictions on night and spear fishing at Sachuest Point Refuge.

The Animal Protection Institute, Inc., is opposed to the commercial and recreational killing of wildlife, including fish, on refuges and they, "...believe it is inappropriate to allow such activities on public lands established to protect wildlife." We received one comment from an individual who stated that fishing should not be allowed because anglers scare wildlife.

### Response

Again, we appreciate the opportunity to clear up misinformation. On Sachuest Point Refuge, our Proposed Action would continue to allow surf fishing, including night fishing, year round. In addition, we would continue to allow access for spear fishing in state waters, but require these anglers to unload and encase their spears while walking across refuge land. We are proposing to designate access points off the headland to the water to minimize vegetation trampling and erosion. Also, our Proposed Action includes implementing a permit system for fishing beginning in 2002. After sunset, the Refuge would be closed except to anglers with permits. We are evaluating whether to use an electronic gate to preclude all other access, thereby addressing nighttime vandalism and trespass problems from the non-fishing public. We plan to monitor fishing activities on refuge lands to insure high quality opportunities are provided.

Chafee Refuge would continue to be open to salt water fishing year round. We would, however, be designating access points to the refuge shoreline to minimize impacts to marsh habitat, reduce shoreline erosion, and to help keep anglers off private lands.

Opportunities for surf fishing on Trustom Pond Refuge's Moonstone Beach would not change. It would remain open to surf fishing from September 16 to March 31 with access on foot only. The closure period (April 1 to September 15) represents the nesting and migration season for the federally threatened piping plover and other shorebirds. Vehicles would continue to be restricted from Moonstone Beach year round.

On Block Island Refuge, our Proposed Action would continue to allow surf fishing year round; however, vehicle access would not be allowed on refuge lands in the vicinity of Sandy Point, that is, above the mean high water line, from April 1 to September 15 each year. As discussed in the Draft CCP/EA, this change is designed to help promote use by piping plover and other shorebirds during the nesting and migration seasons, and to reduce the physical impacts to the beach and dune structure. Public uses on other Block Island Refuge lands would be monitored to determine whether they are compatible with refuge purposes and goals.

Subject to those actions discussed in the Draft CCP/EA (Chapter 3, page 3-43), other actions which could affect fishing opportunities may be implemented as warranted to enhance protection of piping plover and to insure compliance with the Endangered Species Act. For example, additional access restrictions may be imposed in some areas should a piping plover nest be discovered. Necessarily, management for piping plover requires a strategy of adaptive management in response to new information.

Other comments related to beach access on Block Island Refuge are discussed below.

## Wildlife Observation and Photography

### Comments

Several commenters supported the proposed trail improvements at Sachuest Point and Chafee refuges. Others opposed certain actions proposed for Sachuest Point Refuge. A few people, citing a need for shorter loop hikes for the elderly, wanted both Trail #3 and Trail #4 on Sachuest Point to remain. The Friends Group, along with a few commenters, wanted us to consider keeping Trail #3 and the Flint Point observation tower in place. They commented that maintaining Trail #3 would accommodate “less mobile” visitors.

Many of the Block Island residents we heard from expressed concern with the proposals for observation and photography platforms and kiosks on the refuge. They believe these structures would significantly detract from the natural setting.

Several people requested that cross country skiing and snowshoeing be allowed.

### Response

On Sachuest Point Refuge, our Proposed Action would eliminate Trails #3 and #4, restoring them to native coastal maritime habitat. However, in order to respond to those individuals wanting a shorter loop, by 2004 we would evaluate construction of a shorter loop between Trail #1 and Trail #2. Our objective is to increase the amount of area in contiguous, undisturbed natural habitat to benefit nesting and migratory birds, while continuing to provide high quality wildlife observation and photography opportunities. Some research studies indicate that if people are kept to the edge of important habitat, outside of the interior or core habitat areas, their presence is less likely to adversely impact wildlife use of the area. This would be a consideration as we evaluate a shorter loop.

With regards to the Flint Point observation platform on Trail #1, we apologize for the confusion. It was inadvertently left off the Alternative B, Proposed Action map, Map 3-18 (Chapter 3, page 3-77). We do not intend to remove this platform. In addition, our Proposed Action would move a platform from one of the trails to be eliminated to Trail #2, in order to maintain this viewing opportunity.

On Block Island Refuge, our Proposed Action is to delay any wildlife observation, photography, or interpretive projects until we complete the cooperative resource protection and public use plan for northern Block Island in 2003 with our partners. This plan would identify strategies for protecting natural resources while allowing public use and access. In addition, we would cooperatively identify the infrastructure desired to support compatible activities. Our original proposal included projects such as a kiosk, observation platform, interpretive trails, and parking area. Until the plan is completed, however, the only structures we will maintain are Service boundary signs and, in the event that a pair of piping plover nest, the signing and fencing needed to insure their protection.

With regards to cross-country skiing and snowshoeing on all refuges, our Proposed Action would allow these activities where they occur in support of winter wildlife observation, photography, or environmental education or interpretive programs.

---

## Environmental Education and Interpretation

### Comments

Letters from the Town of Narragansett, the Town of Charlestown, and the Friends Group supported our proposed environmental education and interpretation programs. Many individuals supported our proposed increases as well.

### Response

Environmental education and interpretation are priority wildlife-dependent public uses that directly contribute to achieving the Service's Mission and our Refuge Complex goals and objectives. Our Proposed Action would include a significant expansion of environmental education and interpretive programs on each of the five refuges. Full implementation of our proposal would be contingent on adequate budget and staffing.

## Endangered and Threatened Species Protection

### Comments

Some commenters voiced support for our endangered and threatened species protection efforts. The Animal Protection Institute strongly supports the protection of endangered and threatened species but urges the Service to consider "effective long term management strategies that are both humane and biologically sound." Specifically, they question the efficacy of our lethal predator control techniques used in protecting piping plover.

A few commenters expressed opposition with the continued closure of Moonstone Beach on Trustom Pond Refuge to protect nesting piping plover when it was not readily apparent that the restriction on public use was positively impacting species recovery. One individual commented that other factors, such as predators, weather and beach dynamics, and oil spills are considerably more responsible for causing piping plover nest failure than human disturbance. Another individual offered a different seasonal closure for consideration, similar to that proposed in Alternative C.

Some Block Island residents question our management for piping plover on Block Island Refuge. One commenter stated that because piping plover have not nested there in years, "...it is possible we are making great efforts to protect that which doesn't want to be there."

Another commenter requested more detail on how we would manage for the Federally endangered American burying beetle on Block Island.

### Response

Our Proposed Action would continue to manage populations of endangered and threatened species as mandated by the National Wildlife Refuge System Mission, the Endangered Species Act, and as outlined in respective Species Recovery Plans. Specifically, management for the Federally threatened piping plover would continue to be a priority for the Refuge Complex. Our Proposed Action includes the management actions and strategies for piping plover that were identified in Alternative B in the Draft CCP/EA. We would continue to work closely with the Piping Plover Recovery Team and species experts to insure that we are using the best available science. With so many factors impacting nesting success (e.g. habitat loss, habitat degradation, predation, storms, human disturbance, etc.), management for this species requires that we utilize an integrated and adaptive management approach employing many tools and techniques.

For example, we would continue to actively restore breeding, foraging and migration habitat, and manage public use to improve the overall habitat quality for piping plover and least tern. We would also continue a multi-faceted approach to managing the predators impacting piping plover and least tern. Besides removal of individual problem animals, we would continue erecting predator exclosures around nests, reducing litter and other predator attractants, and employing non-lethal predator aversion techniques. Further, we would expand our public education and outreach campaign to promote stewardship of coastal resources, including piping plover habitat.

The public access restriction on Trustom Pond's Moonstone Beach and the seasonal closure to vehicles on Block Island that are included in our Proposed Action were developed in cooperation with the Piping Plover Recovery Team. We continue to believe these actions are a vital and necessary component of an integrated management approach for protecting piping plover along coastal Rhode Island, and are effective management tools. On Block Island Refuge, we admit we do not fully understand why piping plover use has been inconsistent. We identified several possible factors in the Draft CCP/EA (Chapter 2, page 2-18). However, we are encouraged by the nesting attempt on Sandy Point tip this summer and the successful nesting which occurred just south of the refuge in 2000.

With regards to the American burying beetle, our Proposed Action does not specifically identify habitat management area on current refuge lands as we have not completed a habitat suitability analysis. Our proposal is to evaluate all new land acquisitions, in cooperation with the Service's New England Field Office and RI DEM, for their potential to be managed as American burying beetle habitat. Suitable habitat consists of grassland and other early successional vegetation, the presence of suitable prey species, such as gull and pheasant chicks, and soil types that allow beetles to bury prey. Active management may include maintaining the vegetation in grasslands through either mowing, brushing or burning; however, no action would be anticipated in the foreseeable future.

## Non-Priority Public Uses

### Jogging

#### Comments

We received comments for and against allowing jogging on the Refuge Complex. By far, the greatest interest was on jogging at Sachuest Point Refuge. Some people argued that slow jogging is very similar to walking, making enforcement of a "no jogging" policy somewhat ridiculous. Others maintained that jogging is a compatible, wildlife-dependent public use. Many individuals commented that they have never witnessed wildlife or other visitors disturbed by their jogging.

Some commenters, including the Friends Group, endorsed our proposal to eliminate jogging on refuges and supported our commitment to phase-out other non-wildlife dependent uses. The Friends Group does not view jogging as a wildlife-dependent public use, and feels that it would have an adverse impact on wildlife and on other visitors participating in wildlife-dependent activities.

#### Response

Jogging is not a priority public use identified in the Refuge Improvement Act nor is it an activity that is necessary to support the safe, practical, and effective conduct of a priority public use. We acknowledge the public's desire to jog for recreation and fitness in a natural setting, but this activity is not dependent on the presence of fish and wildlife, nor dependent on the expectation of encountering fish and wildlife.

On a small refuge such as Sachuest Point, space on trails and in the parking lot is limited. Volunteers who daily monitor public use on Sachuest Point Refuge estimate that an average of 25% of the refuge's visitors come to jog, with increases on weekends during good weather. With our current estimate of 65,000 annual visitors, 25% amounts to 16,250 jogger visits annually. Many joggers park at the refuge; some jog in groups, some jog with dogs on leash, others jog with dogs off-leash. There are days when the refuge parking lot is full with more vehicles associated with people participating in non-wildlife dependent activities such as jogging, dog walking, swimming and sunbathing, than visitors engaged in wildlife-dependent activities. This level of use will interfere with our proposal to expand priority public use programs such as environmental education and interpretation, wildlife observation and photography. While some joggers maintain they have not noticed a disturbance to wildlife or other visitors from their activity, our concern is the cumulative impact from consistent, virtually year round use, by thousands of joggers. In addition, our Proposed Action would modify trails to promote barrier-free accessibility. Visitors with impaired mobility should not have to concern themselves with avoiding joggers, thus detracting from their wildlife observation experience. Furthermore, as our proposed priority public use programs increase visitation by an estimated 15%, there is a greater potential for conflict in the future.

Maintaining high quality, priority public use programs includes minimizing conflicts with other uses; when we must choose between providing a non-wildlife dependent use or maintaining the quality of an existing priority use, we must choose the latter. We cannot expand our facilities without sacrificing important wildlife habitat and stretching

other resources such as funding and staff time. While it is true that it will sometimes be difficult to distinguish between a “slow jogger” and a walker engaged in wildlife observation, we do not believe this is a reason to allow jogging. Jogging is an activity more appropriately conducted on private lands, or on other public lands not specifically dedicated for wildlife conservation.

On Block Island Refuge, we have little information on public uses. Our Proposed Action includes monitoring all public uses to determine whether they are compatible with meeting refuge purposes and goals. In addition, we would address opportunities in the resource protection and public use and access plan to be developed with our Block Island partners in 2003.

## Dog Walking

### Comments

Many people wrote us indicating their desire to continue walking their dogs in a refuge’s natural setting. Virtually all the comments focused on Sachuest Point Refuge, while two mentioned Block Island Refuge. Most comment letters argued that leashed dogs would not bother wildlife or other refuge visitors. Some commenters at our public meetings felt that we were “punishing the many for the actions of the few” by banning dogs on the refuge. Instead, these commenters felt we could be increasing enforcement to catch the people who walk dogs unleashed or do not clean up their waste. Many commenters also noted that there are very few safe, enjoyable places to walk dogs in the Town of Middletown.

Several commenters supported eliminating dogs from the refuges because they can intimidate visitors and because dogs off-leash can disturb wildlife.

### Response

All of the Rhode Island refuges were established with purposes related to protecting, managing, and conserving native wildlife. The 1997 Refuge Improvement Act mandates that wildlife and wildlife conservation must come first on refuges. The Refuge Improvement Act further stipulates that all activities occurring on refuges should be compatible with wildlife conservation and the specific purposes for which a refuge was established. This is an important distinction from other public lands and recreation areas; refuges have a narrow management focus and are not multi-purpose lands. Six public uses were identified in the Refuge Improvement Act as the priorities for receiving enhanced consideration on refuges. Dog walking is not one of the six priority public uses, nor are dogs (except seeing or hearing dogs) necessary to support the safe, practical, and effective conduct of the priority public use programs we would be implementing on the refuges.

On Sachuest Point Refuge, where this use is monitored by volunteers, dog walkers number in the thousands annually. Dogs running off leash and piles of dog waste left on trails or tossed in the shrubs are consistent problems, not isolated incidences. We receive regular complaints from visitors about unleashed dogs running up to them and their having to step around dog waste on trails. These visitors are intimidated by dogs and disgusted by the waste, and their experience is negatively impacted by these encounters. Further, our Proposed Action would modify trails to promote barrier-free accessibility, and we have concerns with dogs on these same trails, especially loose dogs, where visitors with impaired mobility would be encouraged to observe wildlife. While we could lessen these impacts by constantly enforcing the use of leashes and requiring that dog waste be discarded off refuge lands, this would require us to dedicate considerable personnel time to enforcing compliance of an activity that does not support one of our priority public uses. This additional expenditure of resources would negatively impact our ability to meet Refuge Complex goals and objectives.

As stated above under jogging, on Block Island Refuge, our Proposed Action includes monitoring all public uses to determine whether they are compatible with meeting refuge purposes and goals. In addition, we would address opportunities in the resource protection and public use and access plan to be developed with our Block Island partners in 2003.

## Swimming and Sunbathing

### Comments

Four individuals requested swimming opportunities at Trustom Pond, Sachuest Point, and Block Island Refuges. A few people felt that swimming was compatible with refuge activities, and one stated that swimming at a refuge can be a wildlife-dependent activity.

### Response

There are no swimming opportunities available on refuge lands, that is, above the mean high water line. The opportunities for swimming in the Atlantic Ocean and Narrow River are occurring in state waters, off refuge lands. Trustom Salt Pond is the only significant water body on refuge lands and it will remain closed to swimming year round to protect piping plover, shorebirds, and waterfowl. Other beach-related issues are discussed under Beach Access below.

Sunbathing presents a different concern as it generally occurs above the mean high water line on refuge lands. Sunbathing is not a priority public use; it is also not dependent on the presence of fish and wildlife, nor dependent on the expectation of encountering fish and wildlife. We distinguish sunbathers from those visitors who are otherwise engaged in wildlife observation or photography and decide to rest on the beach. Sunbathers are identified by their blankets, chairs, coolers, windscreens, and/or radios and the hours spent on the beach. Where groups of sunbathers lie, most wildlife will totally avoid this area and are often displaced to lower quality habitats; especially affected are wildlife with preferred foraging habitat along the shoreline. Given our mandate and the purpose for which these refuges were established, we view activities such as sunbathing, which displace wildlife to more marginal habitats, as inappropriate on lands dedicated to wildlife conservation.

## Horseback Riding

### Comments

The South Kingstown Bridle Lanes Association want Trustom Pond and Ninigret refuges open to horseback riding. They believe that, "...limited equestrian activities in the Trustom Pond and Ninigret areas could be a compatible, non-invasive public use if planned and executed in a responsible and organized manner." They reference a Moonstone Beach ride on state lands below the mean high water line sponsored each winter by their organization which they feel is appropriate and wildlife-dependent. They would like the Service to consider opportunities for horseback riding as new lands are acquired into the Refuge System.

### Response

As we have mentioned above, and the South Kingstown Bridle Lanes emphasize in their letter, the Service has no jurisdiction on lands and waters in Rhode Island below the mean high water line. As described, their ride on Moonstone Beach is on state lands.

Our Proposed Action would continue to restrict horseback riding on refuge trails. This activity does not promote wildlife conservation, is not one of our six priority public uses, nor is it necessary to support the safe, practical, and effective conduct of a priority public use on Rhode Island refuges. While we appreciate the desire to horseback ride in a natural setting, we do not believe it is in the American public's best interest to expend limited resources on managing an activity that does not support a priority use. Further, this activity only provides an opportunity for a relatively small segment of the local public. The refuge resources needed to manage horseback riding would directly impact our ability to provide high quality priority use programs.

Notwithstanding all of the above, our refuge trails were not designed to accommodate horses. Our trails are not wide enough, nor long enough, for riders and walkers to avoid each other, nor are trails designed to withstand the impact of horses. This is especially true in wetter areas. Our Proposed Action would modify refuge trails to promote barrier-free accessibility, and to accommodate increased environmental education and interpretive programs. These visitors should not have to contend with horses. Another issue with horse use is the waste left on trails. It is well-documented that horse waste introduces seeds from non-native and invasive vegetation. Further, the horse waste is

unsightly and detracts from other visitors' experiences when they have to step around to avoid it.

With our projected 15% increase in visitation due to increased priority public use programs, conflicts between horse use and refuge programs seem inevitable. We do not believe we should be supporting activities unless they promote our wildlife conservation mission and contribute to high quality, priority public use programs available to a broad spectrum of the American public.

## Bicycling and Multiple Use Trails

### Comments

A letter signed by 14 South County residents urged us to consider opportunities for "passive outdoor recreation green way trails" allowing such activities as dog walking, jogging, cross-country skiing, mountain biking, horseback riding, and hiking. There are South County-wide proposals for a green way trail system linking conservation lands by various owners. These residents suggest that as we cooperate with partners in land protection, areas that include proposed green way trails "...might better be integrated into the plans of more flexible conservation agencies' acquisitions..." which would allow these activities. Other comment letters suggested similar multi-use trails linking to larger trail networks. Also, the Town of Narragansett suggested a walking trail linking to a larger trail from Chafee Refuge.

### Response

Our Proposed Action would continue to restrict most of these multiple-use activities on current refuge trails because of the reasons discussed above for jogging, dog walking, and horseback riding. The only exception is a 600-ft section of the multiple-use South County Bike Path, yet to be constructed, along the outer edge of Chafee Refuge. We would allow this section of trail on refuge because a) it is part of a state trail network; b) we have an established partnership with RI DOT; c) the trail lies on an existing railroad bed where no important habitat will be modified; d) the adjacent wetlands preclude off trail use; and e) because RI DOT has agreed to construct an interpretive kiosk where it traverses the refuge. While we have not included any other exceptions on existing refuge lands in our Proposed Action, we acknowledge there could be extenuating circumstances on lands we acquire in the future which would have us reconsider this decision. These would be evaluated on a case-by-case basis as they arise.

Our Proposed Action would allow cross-country skiing and snowshoeing on refuge trails as methods of access to support wildlife observation and photography, environmental education and interpretation during the winter months.

## Trapping

### Comments

We received a few comments supporting trapping for predator control. The National Trappers Association, Inc. views trapping as a traditional, priority public use. They are critical of our Proposed Action for not providing an open trapping program since they view trapping as important for balancing species with available habitats, reducing human/animal conflicts, and providing a recreational opportunity. They comment that "...unless trapping is proven to be detrimental to the management of the refuges covered by this EA, or is proven to be unsafe practice, these legitimate uses should (or must) be included."

The Animal Protection Institute stated opposition to trapping with the opinion that "...management of NWR's should emphasize wildlife preservation, habitat protection, and native habitat restoration over public uses, especially consumptive uses." They believe trapping is inhumane and does not offer a long term solution for protecting endangered species. Other individuals expressed opposition for ethical reasons, stating all animals should be accommodated on refuge land.

### Response

Trapping is not one of the six priority public uses identified in the Refuge Improvement Act; it was not included with hunting as one commenter suggested. Our Proposed Action would maintain our current trapping program which

includes trapping as needed for management purposes using state licensed trappers, or Refuge Complex staff, to control predators impacting Federal trust resources, or to resolve a human health and safety issue, or to protect property and facilities. A recreational trapping program would not be implemented. Our current trapping program centers on predator management for the Federally threatened piping plover. The 1996 Revised Recovery Plan for the Piping Plover specifically mentions trapping as one of several important predator management tools to be used in combination with non-lethal tools to further recovery efforts. Because predators continue to be one of the most significant factors affecting chick loss on Rhode Island refuges, we have found that trapping is one of the most effective ways to reduce direct mortality of chicks. We would evaluate the effectiveness of trapping as part of the annual evaluation of our piping plover program.

## Beach Access

### Comments

While many letters indicated support for beach restrictions to protect wildlife and habitat, several letters expressed opposition specifically to the beach closure at Trustom Pond Refuge's Moonstone Beach and to the seasonal vehicle restriction on Block Island Refuge.

With regards to Moonstone Beach, commenters feel that it is a uniquely beautiful place that people should be allowed to access year-round, regardless of piping plover activities.

Many more comments related to beach access on Block Island Refuge. While some residents support the proposed seasonal closure to beach driving on refuge land, other residents do not want the restriction imposed. Some people questioned our authority to restrict vehicle access around the entire northern tip of Block Island, from Settlers Rock around Sandy Point tip to West Beach. One commenter suggested that impacts from beach driving on the refuge is no worse than impacts from the thousands of pedestrian visitors. Others feel that beach driving is necessary to encourage traditional uses such as surf fishing, and that operators can act responsibly if we establish sensible guidelines. Some residents suggested issues with beach driving could be minimized if the Town of New Shoreham would enforce the Coastal Resources Management Council permit system for beach driving.

The Town of New Shoreham, the Chief of Police, Emergency Rescue Workers, and the North Light Commission, each expressed the need to maintain emergency vehicle access from Settlers Rock around the tip to West Beach. They also state that if we reduce recreational vehicle traffic on the established sand route, the integrity of the route will diminish and hinder emergency vehicle access.

The North Light Commission was also concerned with precluding vehicle access for maintenance of the North Light lighthouse and precluding access to the lighthouse for visitors with impaired mobility. Several other letters wanted us to continue to allow vehicle access for a researcher engaged in a long term gull study along West Beach.

Additional concerns regarding beach access on Block Island Refuge include residents concerned about maintaining their legal right to harvest seaweed and recognition for existing rights-of-way. The Town of New Shoreham questioned whether the Service has a legal rights-of-way to access Beane Point from the north. Last, many Block Island residents commented that our estimate of 200,000 visitors annually walking the beach across the refuge to the North Light or Sandy Point tip was vastly overestimated.

### Response

We developed the existing seasonal public use restriction on Trustom Pond's Moonstone Beach and the proposed seasonal closure to vehicles on Block Island Refuge in cooperation with the Piping Plover Recovery Team. These closures are consistent with the 1996 Revised Recovery Plan for the Piping Plover, the latest Recovery Team recommendations, and our National Wildlife Refuge System mandate to put wildlife conservation first. We continue to believe these actions are a vital and necessary component of an integrated management approach for protecting the Federally threatened piping plover along coastal Rhode Island. In addition, we are attempting to minimize impacts to dune structure and vegetation with these restrictions.

On Block Island, we would like to clarify that our authority to restrict vehicular access is limited to lands above mean high water on the tracts identified as refuge on Map 1-4, Chapter 1, page 1-17. The map we printed for our Proposed Action in the Draft CCP/EA misled people into thinking the Service had authority to restrict access along the entire

area from Settlers Rock around Sandy Point tip and down West Beach. We apologize for the confusion. We only have authority to impose this restriction on refuge lands. Our proposed seasonal restriction is for vehicles only, and would not impact visitors engaged in surf fishing, wildlife observation, and other priority public uses who access by foot. However, it is important to recognize that additional restrictions may be imposed if breeding piping plover are observed in the area. Activities this summer present an example of what may occur. After a nest was discovered on Sandy Point tip in June 2001, an area around the nest was roped off to protect the adults incubating eggs until we discovered the eggs were lost to predation and the nest was abandoned. The area roped off will vary depending on nest location and proximity to human activities.

Our Proposed Action would continue to allow emergency vehicle access from any roads or travel ways on refuge land. We would also continue to respect the legally established rights-of-way for the North Light Commission to access the North Light for maintenance and to provide access for visitors with impaired mobility. We would also continue to allow the gull research project, but only under authority of an approved Special Use Permit. Our proposal would continue to honor all legitimate, legal rights-of-way or legal rights to harvest or use coastal resources on refuge land that was assumed with the transfer of deed and land title. We would need to review the documentation associated with these rights on a case-by-case basis. The resource protection and public use and access plan to be developed with our Block Island partners in 2003 would also provide an opportunity to identify and review specific claims.

Our estimate in the Draft CCP/EA of 200,000 visitors to Block Island Refuge was extrapolated from a count of vehicles visiting the parking lot at Settlers Rock during a two-month period. We agree with the commenters that a more reasonable estimate of 40,000 people annually make the traverse across refuge land, with primary destinations to the North Light and Sandy Point tip.

## Habitat Restoration Projects

### Comments

We received a number of comments supporting native coastal sandplain and coastal maritime habitat restoration. RI DEM supports our restoration work, except on 145 acres at Trustom Pond Refuge. They feel these acres should be retained in agriculture to benefit wintering waterfowl, namely Canada geese. They contend switching to native grasslands and shrublands is forcing Canada geese to feed off refuge on golf courses, turf farms, and industrial areas causing property damage. Further, they feel the small size of the restoration area will only minimally benefit breeding grassland birds.

The RI DEM and a few other commenters supported efforts to improve water quality and reduce shoreline erosion. Several people also specifically supported our proposal to RI DEM to implement a “no wake zone” in Pettaquamscutt Cove to minimize shoreline erosion.

### Response

Our Proposed Action is to continue with the 447 acres of native, coastal grassland and shrubland habitat restoration projects on Ninigret, Trustom Pond, and Sachuest Point refuges. With regards to the 145 acres on Trustom Pond Refuge, our goal is to restore a monotypic hayfield to native coastal sandplain habitat and create a habitat mosaic of grasslands and shrublands that benefits a wide variety of migratory birds, rather than just Canada geese. Our intent is to improve habitat for such species as American woodcock, field sparrow, eastern bluebird, eastern meadowlark, savannah sparrow, bobolink, and northern harrier. We acknowledge that resident Canada geese are a problem throughout Rhode Island, but do not believe we should continue to maintain hayfields for a problem species on refuge lands dedicated to promoting native biodiversity. We would be happy to discuss other possible solutions with RI DEM, and respective towns and property owners, in order to cooperatively address the resident Canada goose problem in the South County area.

Our Proposed Action includes several projects aimed at improving water quality; each were described in detail in Alternative B in the Draft CCP/EA. On refuge lands, we are striving to minimize shoreline erosion, buffer wetland systems with natural vegetation, reduce invasive *Phragmites*, and restore natural hydrology to wetland areas. However, the biggest benefit would come from our land acquisition program, which strives to protect coastal salt ponds, estuaries, stream banks, and shoreline from development.

We have no authority to create a no-wake zone in the Pettaquamscutt Cove and the lower Narrow River. Rather, we are making a recommendation to RI DEM to consider such a measure to reduce shoreline erosion and disturbance to visitors and wildlife alike.

## Management of Invasive, Non-native, or Overabundant Plants and Animals

### Comments

Some commenters requested we control overabundant populations of gulls, mosquitos, and ticks.

### Response

We do not generally manage these species on the Rhode Island Refuges. We would continue to monitor the gull populations in certain areas, and we would control gulls that pose a threat to the Federally threatened piping plover and the least tern colonies. While the gulls in Rhode Island are native species, they can be voracious predators. The 1996 Revised Recovery Plan for the Piping Plover states that, "Gulls should be prevented from establishing and expanding their nesting colonies at plover nesting areas, and existing gull colonies at plover nesting sites should be removed." However, we are not proposing any specific gull reduction measures at this time because, in some areas, the gull populations have already been declining.

Our Proposed Action for mosquito control is to consider applying larvicides on a case-by-case basis when the Mosquito Abatement Office demonstrates an elevated public health risk or public health emergency. If the State of Rhode Island declares a public health emergency, we would need to issue a Special Use Permit prior to treatment on refuge lands. In general, we do not use or advocate larvicides because of the risk to non-target species, such as other invertebrates and migratory birds.

We would not directly manage tick populations per se, but would evaluate opportunities to reduce the threat of Lyme disease through deer management. Our Proposed Action includes a Refuge Complex Deer Management Plan, to be completed in 2002, which would assess alternatives for managing the Refuge Complex's deer population.

## Land Ownership and Future Acquisition

### Comments

Many commenters, including the Town of Narragansett, the Town of Charlestown, the Friends Group, the Audubon Society of Rhode Island, and South County Bridle Lanes Association, supported increased land acquisition efforts by the Service. Some of these commenters preferred the more ambitious Service land acquisition component of Alternative C in the Draft CCP/EA. Alternative C included acquisition of an additional 11,500 acres, while the Service's Proposed Action (Alternative B) includes acquisition of an additional 3,200 acres.

A few commenters, including RI DEM, preferred the more limited land acquisition component of Alternative A (Current Management), which included 735 acres. Subsequent conversations with RI DEM identified their support for Alternative A was primarily based on concerns the Service may restrict hunting and fishing on newly acquired lands. One commenter did not support any further land acquisition by the Service.

Several Block Island residents specifically requested clarification on ownership of the Sandy Point tip on the north end of Block Island. They also wondered if refuge lands were surveyed and accurately posted.

### Response

Our Proposed Action for future Service land acquisition is presented in detail in the recently completed draft Land Protection Plan (LPP) (November 2001). The LPP is a refinement of our Proposed Action in the Draft CCP/EA. It was developed after consideration of public comments and updates on land protection activities by other entities in South County. We established our proposed acquisition areas using discreet and well-defined boundaries, and after consideration of impacts on administrative resources. After a 30-day public review and comment period by the landowners within the proposed acquisition boundary, the LPP will be submitted to our Director for review and approval.

In summary, we are seeking approval on the following expansions for each Rhode Island Refuge:

<u>Refuge</u>	<u>Acres</u>
Block Island	95
John H. Chafee	1,004
Ninigret	497
Sachuet Point	300
Trustom Pond	1,290
Total	3,186

The Pre-Acquisition Compatibility Determination presented in Appendix E of the Draft CCP/EA established our intent with managing priority public uses on newly acquired refuge lands. We stated that existing, public, priority, wildlife-dependent uses would be allowed to continue on an interim basis assuming the following conditions are met:

- 1) There is no indirect, direct, or cumulative threat anticipated to human health or safety.
- 2) There is no indirect, direct, or cumulative threat anticipated to natural or cultural resources.
- 3) The use is consistent with management of existing Rhode Island Refuge Complex lands; in particular, existing Refuge Complex regulations would not be compromised.
- 4) The newly acquired lands represent a meaningful unit within which to manage the activity.
- 5) There are no anticipated conflicts between or among priority public uses.

As individual tracts are acquired by the Service, we would determine which existing priority uses would be allowed. Compatibility Determinations for priority public uses would be reviewed and updated every 15 years, or as soon as conditions change significantly, or when there is significant new information regarding the effects of the use, or with revision of the CCP, whichever comes first.

With regards to Sandy Point tip, our records indicate that approximately 4 acres were retained by the Coast Guard. This has been confirmed through our contacts with the Executive Officer for Realty and Environmental Compliance and the Unit Commander in Providence. We have indicated to them the Service's interest in acquisition of the property. This property is adjacent to Block Island Refuge and part of a contiguous piece of suitable habitat for breeding piping plover and other shorebirds. We believe this property should be protected for the long term and managed in conjunction with the refuge to benefit these species.

## Administration and Facilities

### Comments

A few commenters mentioned Refuge Complex staffing needs and supported our proposals for new staff positions. Among those supporting increased staffing were RI DEM and the Friends Group. Some commenters mentioned the need for increased law enforcement related to public uses such as dog walking, but did not specifically mention staffing increases. One commenter opposed increases in staffing.

We received a few suggestions for parking lot relocation or expansion at Sachuest Point Refuge. One commenter recommended gravel parking lots instead of asphalt because gravel is more aesthetically pleasing, provides a more pervious surface, has less runoff, there is less pollution during construction, and there is a cost savings.

On Block Island, several residents were opposed to new structures, including observation platforms and parking lots being built on Block Island Refuge. The Town of New Shoreham expressed concerns with whether the Beane Point facility conforms to local building and health requirements.

Two commenters called for an increased maintenance budget for the Refuge Complex.

### Response

One purpose of the CCP is to layout and prioritize future projects over the next 15 years and identify the budget and staffing needed to support them. We believe we have accomplished this in the Draft CCP/EA using the best informa-

tion we have available today. Costs for projects, including staffing and maintenance needs, are based on our current knowledge of the scope of each project. As we stated several times in the Draft CCP/EA, full implementation of our Proposed Action requires access to the funding and staffing identified.

Funding from the 1997 Transportation Equity Act supported an upgrade to the parking lot at Ninigret Refuge, and will allow us to design and construct a new Administrative Office and Visitor Center in Charlestown, and renovate the Visitor Center at Sachuest Point Refuge. The parking area at Sachuest Point Refuge was reconstructed in the early 1990's. While space there is limited at times, we do not plan another modification. The decision to use asphalt or gravel as a surface for parking lots and travelways is made on a case-by-case basis after consideration of anticipated traffic, safety, maintenance needed, drainage requirements, and environmental impacts. Each of these needs to be considered before we determine the most effective and cost efficient surface.

With regards to specific projects on Block Island, please refer to the Wildlife Observation and Photography discussion above. We would work with our Block Island partners to complete a resource protection and public use and access plan in 2003. Our goal is to collaborate on decisions for protecting resources, while allowing public uses, on all public and conservation lands on northern Block Island. This process would identify any infrastructure needed to implement common objectives for the area. Regarding the Beane Point facility, the renovations recently undertaken conform to federal requirements for this type of structure. Federal facilities on federal land are not bound by local building codes. However, the refuge is voluntarily working with the Town of New Shoreham Building Inspector who is cooperating in an advisory capacity with Refuge staff as we complete renovations.

## Miscellaneous Comments

### Comments

We received several comments that were either outside the scope of the Draft CCP/EA or outside of our authority to implement them. For example, several people expressed concerns with the landfill capping project on Sachuest Point Refuge. Other people commented on our recommendation to RI DEM to consider moving the State's Ninigret Conservation campground to another area on state land, away from piping plover habitat. Several people expressed support for our recommendation to the RI DEM to implement a no-wake zone in the lower Narrow River and Pettaquamscutt Cove. One person wrote us with a proposal to consider breaching Sachem Pond on Block Island to restore tidal flow and improve the ecology of the area.

### Response

The former Town of Middletown landfill project at Sachuest Point Refuge is a Superfund site. As such, a separate process outside the scope of the Draft CCP/EA was initiated. With the Environmental Protection Agency (EPA) as the lead agency, our Denver Engineering Office worked with the EPA, RI DEM, and the Town of Middletown to develop an implementation plan. Public meetings were held in the Town of Middletown. The remediation plan for the landfill site is complete and can be viewed at the Town Manager's Office, Town of Middletown.

With regards to the state campground and the no-wake zone on the Narrow River, we will be meeting with RI DEM to discuss these recommendations and others we received during this public comment period.

Sachem Pond on Block Island is not on refuge land, and therefore, is not under the jurisdiction of the Service. We would be pleased to share information and our expertise from our experiences with mainland salt pond breaching on Trustom Pond Refuge. In addition, we will forward this recommendation onto the Town of New Shoreham and RI DEM.

**Appendix C**

**Finding of No Significant  
Impact (FONSI)**

## **Finding of No Significant Impact Rhode Island National Wildlife Complex Comprehensive Conservation Plan and Environmental Assessment**

The Rhode Island National Wildlife Refuge Complex (Refuge Complex) is made up of Block Island, Ninigret, John H. Chafee at Pettaquamscutt Cove, Sachuest Point, and Trustom Pond National Wildlife Refuges. The Draft Comprehensive Conservation Plan and Environmental Assessment for the Rhode Island National Wildlife Refuge Complex (December 2000) (CCP/EA) evaluated four management alternatives, carefully considering their impacts on the environment, their potential contribution to the mission of the National Wildlife Refuge System, and refuge purposes and goals. A brief summary of these four alternatives follows.

Alternative A: This is the No Action Alternative required by the Council of Environmental Quality's regulations on implementing the National Environmental Policy Act. Under this alternative, there would be no change from our current resource management programs on refuge lands. We would continue to protect piping plover nesting habitat and restore native, coastal shrublands, grasslands, and wetlands. Our six, priority public use programs would be maintained at existing levels. We would also maintain our current, approved land acquisition boundaries for each of the five refuges. There are 449 total acres not yet acquired within approved refuge boundaries.

Alternative B: This alternative was the Service's Proposed Action in the Draft CCP/EA. Under this alternative, we would increase protection and management for endangered, threatened, and other species of concern, increase restoration of native coastal shrublands, grasslands, and wetlands, and increase biological inventories and monitoring. The quality of our six, priority public use programs would improve, coupled with a notable expansion of new opportunities in each program. In addition, Alternative B would expand all refuge boundaries, increasing our current land acquisition goal by 3,200 acres.

Alternative C: This alternative would also increase protection, management, restoration, monitoring and inventories of species and habitats, similar to Alternative B. Under Alternative C, refuge staff would take the lead in accomplishing interagency, watershed-based planning initiatives, piping plover recovery team tasks relevant to Rhode Island, and ecosystem team priorities. This emphasis would require that a considerable amount of staff resources be dedicated to larger, landscape-level planning efforts. The quality of environmental education programs on the refuges would improve, with a significant increase in opportunities. Other priority public use programs would be maintained at current levels. Selection of this alternative would expand all refuge boundaries, increasing our current land acquisition goal by 11,500 acres.

Alternative D: This alternative would maintain current resource management programs, and maintain current, approved land acquisition boundaries similar to Alternative A. This alternative is distinguished from the others by the allocation of resources dedicated to expanding all six priority public use programs. All five refuges would implement significant increases in the quality and quantity of public use programs.

The Draft CCP/EA was distributed for a 51 day public review period during January and February 2000. An additional 30 day public review period occurred during December 2001 for two new compatibility determinations for trapping and waterfowl hunting. After consideration of all public comments, I determined this Environmental Assessment was sufficient to support my findings.

Based on the analysis provided in the Environmental Assessment and the comments received from the public, I have selected Alternative B ( the Service's Proposed Action in the Draft CCP/EA), with the following four modifications:

- We will complete a deer management plan and accompanying environmental assessment (EA) for the Refuge Complex by the end of calendar year 2002. We will specifically evaluate public deer hunting as one alternative for managing deer populations and as a means of supporting a priority public use. This is a change from Alternative B in that it will be a consolidated plan for all five refuges, and would be done sooner than originally planned.
- We will expand the acquisition boundaries of each refuge as identified in the Land Protection Plan (LPP) for the Refuge Complex, which has been reviewed and approved by our Director. The LPP is a refinement of

the land protection proposal presented in Alternative B, and was developed after consideration of public and partner comments on the Draft CCP/EA, the draft LPP, and recent changes in land status. The LPP provides specific information on 2,681 acres approved for Service acquisition from willing sellers. The LPP identifies the specific parcels of interest to the Service, their priority, and the protection option recommended. We will also continue to pursue acquisition of the 449 acres not yet acquired within the original refuge acquisition boundaries.

- We will allow waterfowl hunting on the John H. Chafee Refuge according to state and refuge regulations beginning in the fall 2003 season. This opportunity was evaluated in Alternative D of the Draft CCP/EA. Based on public and partner comments, we will provide this opportunity in support of a priority public use that is also an historic and traditional use in this area.
- We will develop a cooperative resource protection and public use plan with our Block Island partners by the end of calendar year 2003. This is sooner than originally planned in Alternative B, and is in response to our island partners' concern about potential land use changes in the near future. Further, our proposals in Alternative B for infrastructure to support wildlife observation, photography, environmental education and interpretation on Block Island Refuge will be postponed and re-evaluated after completing the cooperative plan.

I have selected Alternative B, with the modifications noted above, because it helps fulfill the mission of the National Wildlife Refuge System; best achieves refuge purposes, vision and goals; maintains and, where appropriate, restores the ecological integrity of each refuge; addresses the significant issues identified during the planning process; and is consistent with principles of sound fish and wildlife management.

I find that the implementation of modified Alternative B will not have a significant impact on the quality of the human environment in accordance with Section 102 (2) (c) of the National Environmental Policy Act. As such, I have concluded that an Environmental Impact Statement is not required, and this Finding of No Significant Impact is appropriate.

M. Parker

Dr. Mamie A. Parker  
Regional Director, Region 5  
U.S. Fish and Wildlife Service  
Hadley, Massachusetts

5/14/02

Date

UNITED STATES FISH AND WILDLIFE SERVICE  
ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA), and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of (describe action):

**Implementation of the Preferred Alternative for the Rhode Island National Wildlife Refuge Complex Comprehensive Conservation Plan as described in the Finding of No Significant Impact.**

Check One:

\_\_\_\_\_ is a categorical exclusion as provided by 516 DM 2, Appendix 1 and 516 DM 6, Appendix 1. No further NEPA documentation will therefore be made.

is found not to have significant environmental effects as determined by the attached environmental assessment and finding of no significant impact.

\_\_\_\_\_ is found to have significant effects and, therefore, further consideration of this action will require a notice of intent to be published in the Federal Register announcing the decision to prepare an EIS.

\_\_\_\_\_ is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.

\_\_\_\_\_ is an emergency action within the context of 40 CFR 1506.11. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.

Other supporting documents (list): (Draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for the Rhode Island National Wildlife Refuge Complex, and the Finding of No Significant Impact for the Rhode Island CCP/EA)

Signature Approval:

1. Nancy A. Maynard 5/13/02  
Originator Date

2. Walter Lued 5/13/02  
WO/RO Environmental Coordinator Date

3. Anthony D. Lopez 5/14/2002  
Regional Chief National Wildlife Refuge System Date

4. Ma Parker 5/14/02  
Regional Director Date

## Appendix D

# Compatibility Determinations

- Wildlife observation and photography, and environmental education and interpretation
- Waterfowl hunting
- Fishing
- Trapping
- Pre-acquisition compatibility determination for hunting and fishing
- Pre-acquisition compatibility determination for wildlife observation and photography, environmental education and interpretation

## Compatibility Determination Rhode Island National Wildlife Refuge Complex

### Uses

Wildlife observation and photography, and environmental education and interpretation.

### Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority. Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for each refuge in the Rhode Island National Wildlife Refuge Complex (Refuge Complex) are given below.

#### Block Island National Wildlife Refuge

Date Established: 2 November 1973

Establishing and Acquisition Authorities: Block Island National Wildlife Refuge (Block Island Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or other Purposes.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were for. . . “particular value in carrying out the national migratory bird management program.”

#### Ninigret National Wildlife Refuge

Date Established: 12 August 1970

Establishing and Acquisition Authorities: Ninigret National Wildlife Refuge (Ninigret Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. Additions to the refuge were acquired under the Migratory Bird Conservation Act, 16 U.S.C. 715d.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were established for their. . . “particular value in carrying out the national Migratory Bird Management Program.” Additional lands acquired under the Migratory Bird Conservation Act (16 U.S.C. ss 715d) were. . . “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

#### John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove

Date Established: 5 November 1988 (originally established as Pettaquamscutt Cove National Wildlife Refuge)

Establishing and Acquisition Authorities: John H. Chafee National Wildlife Refuge (Chafee Refuge) was established under an Amendment to the Emergency Wetlands Resources Act (102 Stat. 3177) and the National Wildlife Refuge Administrative Act of 1966, as amended (16 USC 668dd - 668ee; 80 STAT 927).

Purpose(s) for which Refuge was established: The purposes for which the refuge was established and managed for are: “(1) to protect and enhance the populations of black ducks and other waterfowl, geese, shorebirds, terns, wading birds, and other wildlife using the refuge; (2) to provide for the conservation and management of fish and wildlife within the refuge; (3) to fulfill the international treaty obligations of the United States respecting fish and wildlife; and (4) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation” (102 Stat. 3177).

#### Sachuest Point National Wildlife Refuge

Date Established: 3 November 1970

Establishing and Acquisition Authorities: Sachuest Point National Wildlife Refuge (Sachuest Point Refuge) was established under the Refuge Recreation Act of 1962 and the Fish and Wildlife Act of 1956.

Purpose(s) for which Refuge was established: Sachuest Point Refuge was established “...for the development, management, advancement, conservation, and protection of fish and wildlife resources” and

for “(1) incidental fish and wildlife-oriented recreational development; (2) protection of natural resources, and (3) conservation of endangered or threatened species” (Refuge Recreation Act of 1962).

### Trustom Pond National Wildlife Refuge

Date Established: 15 August 1974

Establishing and Acquisition Authorities: The Trustom Pond National Wildlife Refuge (Trustom Pond Refuge) was established under the authority of the Migratory Bird Conservation Act, 16 USC 715-715R and by the Refuge Recreation Act, 16 USC c - 1.

Purpose(s) for which Refuge was established: For lands acquired under the Migratory Bird Conservation Act, as amended, the purpose of the acquisition is “. . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” 16 U.S.C. § 715d (Migratory Bird Conservation Act) and for “. . . (1) incidental fish and wildlife-oriented recreational development; (2) the protection of natural resources; and (3) the conservation of endangered or threatened species. . .” as authorized by the Refuge Recreation Act, 16 USC. c - 1.

### National Wildlife Refuge System Mission

The Mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

### Description of Uses

*Are the uses priority public uses?*

Yes. Wildlife observation and photography, and environmental education and interpretation were specifically identified as priority, wildlife-dependent recreational uses by the National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act; P.L. 105-57).

### Environmental Education

*Where would the use be conducted?*

On-refuge environmental education activities would occur on Block Island, Ninigret, Chafee, Sachuest Point, and Trustom Pond refuges, generally within 50 meters of existing trails and other developments such as outdoor classrooms and viewing platforms. Off-refuge programs will occur in local school classrooms or other local community facilities.

Certain areas on refuges may be closed to public access at the Refuge Manager’s discretion to protect sensitive habitats or species of concern, minimize conflicts with other refuge activities, or due to human health and safety concerns.

*When would the use be conducted?*

Environmental education will occur year-round during daylight hours when the refuge is open; however, most of the field programs will be associated with the fall and spring school year terms.

*How would the use be conducted on each of the refuges?*

The environmental education program will have three components: on-refuge activities, community outreach, and technical assistance to adjacent landowners. Community outreach and technical assistance will not occur on refuge lands and are further described in the Draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for the Rhode Island National Wildlife Refuge Complex (December 2000). On-refuge activities will primarily include teacher- or staff-guided field trips exploring topics requested by teachers, “Teach-the Teacher” workshops, or more structured curriculum-based programs specifically designed for use on the refuges. Participants will observe nature from designated refuge trails and viewing platforms, or engage in activities at existing and future outdoor classroom sites.

Additionally, activities will utilize interpretive infrastructures such as kiosks, sign panels, visitor contact Stations, and the future Refuge Complex Visitors Center/Administrative Facility (see Interpretation section).

We will develop a Visitor Services Plan for the entire Refuge Complex by 2004, which will provide more detailed, strategic guidance for the environmental education program by setting objectives, strategies, and evaluation criteria. It will include timelines and priorities for accomplishing the program outlined in refuge Comprehensive Conservation Plans. We will enlist partners to help us identify objectives for the environmental education program, and participate in the design, implementation, and monitoring of specific, curriculum-based programs. A good example is the existing partnership with the Friends Group who design, fund, and implement an endangered and threatened species and barrier beach education program.

All activities will avoid sensitive areas prone to disturbance (e.g. sensitive vegetation areas) or degradation (e.g. soil compaction), and will be designed to minimize impacts to nesting birds or other breeding wildlife. Access to activities will be on foot, snowshoe, or cross-country skis. Access by kayak and canoe will be appropriate for Chafee and Ninigret refuges.

#### Environmental Education – Block Island Refuge:

Refuge Complex staff have not conducted environmental education programs on Block Island Refuge to date. The Nature Conservancy (TNC) on Block Island has an established program with a part-time educator leading occasional trips with schoolchildren on the refuge. An unknown number of teacher-led school group trips also occur on the refuge.

We will initiate a formal partnership with TNC to conduct environmental education programs on the refuge. This will facilitate the sharing of resources, and assist in curriculum development and implementation. We will also support an environmental education program on the refuge by utilizing the Beane Point facility as a classroom laboratory or for housing seasonal educators. Activities at Beane Point and on refuge beaches will avoid disturbance to nesting and roosting shorebirds and wading birds.

#### Environmental Education – Ninigret Refuge:

Currently, much of the refuge's environmental education is conducted by the Frosty Drew Nature Center under a Memorandum of Agreement. Frosty Drew is a private, non-profit education facility located adjacent to the refuge in Charlestown's Ninigret Park. The Center's interpretive and environmental education programs consist of outdoor classroom activities held throughout the year for school and scout groups; regularly scheduled public nature tours; and a nature day camp ("Nature Week") for children during the summer.

All environmental education programs on the refuge are conducted by naturalists from this organization and knowledgeable members of the Refuge Complex's volunteer cadre. During the last several years, approximately 2,500 students from local schools have participated in outdoor classroom activities. Group numbers average 42 students per class, but instructors will take up to 50 students. Typically, the Frosty Drew programs use the refuge only for access to Ninigret Pond, where they dip-net and explore salt pond ecology.

The partnership has worked very well and we have not witnessed any adverse impacts to wildlife or habitat. We will continue the cooperative venture with Frosty Drew. We will also develop two low-impact outdoor classroom sites, which will interpret the on-going native habitat restoration work (asphalt runway removal project) and salt pond ecology, and develop resource education stations along the existing "Trail Through Time," which traverses the refuge. We will organize a Volunteer Environmental Education Corps (shared with Trustom Pond Refuge) to help with program implementation and monitoring.

Environmental Education – Chafee Refuge:

Refuge Complex staff have not conducted environmental education programs on Chafee Refuge to date. However, we consider this refuge to have outstanding potential, especially with support from local conservation partners such as: the Narrow River Preservation Association, the Narrow River Land Trust, the South County Land Trust, South County Museum, the University of Rhode Island, and numerous public and private schools. Environmental education would compliment ecotourism-related uses, as well as kayaking and canoeing, which are becoming increasingly popular in the waters on and adjacent to the refuge.

We will cooperate with RI DEM to educate the public on the impacts to native saltmarsh vegetation and wildlife from excessive motorboat and jet ski speeds near the refuge shoreline. Additionally, we will cooperate with local schools and partners to develop an outdoor education curriculum featuring the Narrow River estuary and Pettaquamscutt Cove. We will also develop a formal partnership with the South County Museum to conduct environmental education programs in the area. We will utilize the road in the former Bridgeport Commons subdivision for access, and are evaluating the potential to construct at least one new accessible trail. The final trail location will be designed to avoid sensitive areas and minimize shoreline erosion. No other infrastructure is planned at this time.

Environmental Education – Sachuest Point Refuge:

Environmental education activities at Sachuest Point Refuge include numerous visits by school groups led by either teachers or Refuge staff, or programs conducted by the private, non-profit Norman Bird Sanctuary. Up to 650 students/year have been accommodated. All activities utilize the existing three-mile trail system.

The environmental education program will be greatly enhanced with the planned renovation of the Visitor Center which will increase its effectiveness as an educational facility. Renovations will include improved exhibits and classroom meeting space. We will also develop a formal partnership with the Norman Bird Sanctuary to share resources and cooperatively develop and implement environmental education programs on the refuge. Finally, we will cooperate with local Middletown and Newport schools to develop curriculum-based programs (featuring refuge resources), and establish a Sachuest Point Volunteer Environmental Education Corps. We will develop two low-impact outdoor education sites: one will focus on native upland vegetation restoration, and the second on wetlands restoration. Both sites will be located to minimize disturbance to wildlife and sensitive habitats.

Environmental Education – Trustom Pond Refuge:

Environmental education activities at Trustom Pond Refuge currently include teacher-led school visits or programs led by Refuge staff and volunteers. Up to 17 classes per year have been hosted on the refuge. An outdoor education site on Moonstone Beach educates beach visitors and school children about endangered and threatened species and barrier beach management. The program will continue to be improved, thanks to the efforts of the Friends Group. A second outdoor education site is a very popular school destination site. This site consists of a dock on the old “farm pond.” Students sample aquatic plant and invertebrate communities with dip nets from the dock. These programs have been ongoing and we have not witnessed any impacts to wildlife or habitats. Access to environmental educational activities occurs on existing roads or trails. Two additional outdoor education sites will feature native habitat management and coastal salt pond ecology. Both sites will be located to minimize disturbance to wildlife and sensitive habitats.

As mentioned under Ninigret Refuge, we plan to organize a Volunteer Environmental Education Corps to help with program implementation and monitoring.

*Why is the use being proposed on each of the refuges?*

The 1997 Refuge Improvement Act states that priority, wildlife-dependent public uses should receive enhanced consideration in planning and be facilitated on refuges to the extent they are compatible.

During public meetings and review for the Draft Comprehensive Conservation Plan/Environmental Assessment (December 2000), environmental education was identified as the most desirable priority public use to provide on refuges. Environmental education activities promote public understanding and appreciation of the role of the National Wildlife Refuge System, and the individual refuges, in the conservation of wildlife, plants, and cultural resources. These programs provide an opportunity to share the missions of the Service and the National Wildlife Refuge System. Another important goal of the program is to teach young people how to take personal responsibility for environmental stewardship throughout their lives. These programs will help us achieve refuge purposes and management objectives, as stated in the final Comprehensive Conservation Plans for each refuge.

## Environmental Interpretation

*Where would the use be conducted?*

On-refuge environmental interpretation activities would occur on Block Island, Ninigret, Chafee, Sachuest Point, and Trustom Pond Refuges, generally on designated trails or at developments such as kiosks and viewing platforms. In addition, the planned Rhode Island National Wildlife Refuge Complex Visitor Center/Administrative Facility (RI VC) and the renovations at the Sachuest Point Visitor Center will enhance the interpretive programs for the Refuge Complex and serve as “interpretive centers of excellence”. Off-refuge programs will occur in school classrooms, at campgrounds, or in local community facilities.

Certain areas on refuges may be closed to public access at the Refuge Manager’s discretion to protect sensitive habitats or species of concern, minimize conflicts with other refuge activities, or due to human health and safety concerns.

*When would the use be conducted?*

Interpretive activities will be conducted year-round, primarily during daylight hours when the refuge is open. Occasional staff- or volunteer-led night programs will occur during the year. Interpretive activities will be stepped up during the summer months, when the refuges receive peak visitation.

*How would the use be conducted?*

Environmental interpretation activities on-refuges will be both self-guided and staff or volunteer-led. Activities will occur on designated trails or at developed sites. Kiosks at refuge trailheads, refuge trail guides and brochures, and interpretive panels at observation platforms will facilitate self-guided tours on trails. Staff and volunteer-led programs will be more diverse and allow for more interaction with visitors. A seasonally-staffed visitor contact station on Trustom Pond Refuge will continue to be maintained and another will be constructed on Ninigret Refuge to provide information to visitors. Access to activities will be by foot, snowshoe, or cross-country skis. Access by kayak and canoe will be allowed for Chafee and Ninigret refuges.

As with the environmental education programs, we will be developing a Visitor Services Plan by 2004 to further provide detailed, strategic direction for the environmental interpretation program and identify partnership opportunities.

### Environmental Interpretation – Block Island Refuge:

In 2002, we plan to coordinate with the Town of New Shoreham and other Block Island conservation partners to develop a public use and access plan for all public and conservation lands on north Block Island. The plan will identify opportunities for a trail network and locations and determine where interpretive infrastructure is best suited. At this time, no infrastructure is planned for refuge lands.

### Environmental Interpretation – Ninigret Refuge:

Interpretation of habitat and wildlife values will continue at the trailhead and two parking lot kiosks. The main parking area (off Route 1) has recently been improved to accommodate more visitors and buses, and will be maintained. Self-guided brochures and species checklists are available at the kiosks. The

3.8-mile, handicapped-accessible “Trail Through Time”, once completed, will have interpretive stations along its length. Interpretive panels will be improved at the one existing observation platform and will be developed for the two planned observation platforms. A seasonally-staffed visitor contact station will be constructed to facilitate visitor contacts and distribute information.

Refuge staff and volunteers will continue to lead interpretive programs on the refuge, at the nearby Burlingame State Park campground, in classrooms, and at other local community facilities upon request.

#### Environmental Interpretation – Chafee Refuge:

No interpretive opportunities currently exist at Chafee Refuge; however, we plan to develop several self-guided opportunities. We are evaluating opportunities to construct a kiosk and accessible trail and observation platform at Bridgeport Commons. Cooperating with RI DOT and the Town of Narragansett, we hope to construct an interpretive kiosk and pullout overlook at Middlebridge. We intend to develop canoe and kayak interpretive, self-guided trail guides. Also, we will coordinate with RI DOT’s construction of an interpretive kiosk on the South County Bike Trail where it traverses the refuge. Finally, we plan to partner with the South County Museum to develop refuge interpretive programs featuring the Narrow River.

Refuge staff and volunteers will lead interpretive programs on the refuge, in local classrooms, or in cooperation with the South County Museum.

#### Environmental Interpretation – Sachuest Point Refuge:

The Sachuest Point Visitor Center is currently being renovated, including development of new interpretive exhibits. Interpretive information will continue to be posted at the one existing kiosk off the parking lot. As part of an expanded interpretive program, we will develop a self-guided tour on the existing trail system interpreting habitat management, natural history, and cultural resources. At least 3/4 mile of the trail system will be renovated to provide handicapped-accessibility. We would also develop 2 additional interpretive kiosks at strategic points along the trails; provide interpretive information at two observation platforms; improve signage; create “watchable wildlife” pamphlets, and develop multi lingual literature. Off-refuge, we will coordinate with the Town of Middletown to develop interpretive signs, kiosks, or exhibits on the Town’s Second and Third beaches and plan an exhibit for the Newport Visitor Center.

We will continue to provide staff and volunteer-led interpretive programs on the refuge throughout the year. As mentioned above under environmental education, we will continue our partnership with the Norman Bird Sanctuary, cooperating in refuge interpretive programs.

#### Environmental Interpretation – Trustom Pond Refuge:

A seasonally-staffed visitor contact station and kiosk are established on Trustom Pond Refuge at the main trail head to facilitate visitor contacts and provide interpretive materials. Self-guided trail brochures and species checklists are available at this location. The easternmost branch of the trail will be renovated to provide handicapped-access to the Pond. Interpretive panels will be improved and/or developed at the three existing observation platforms. Refuge staff and volunteers will continue to lead interpretive programs on the refuge, in local classrooms, or at local community facilities upon request. We will improve the existing kiosk at the Moonstone Beach parking area.

#### *Why is this use being proposed on the refuges?*

The 1997 Refuge Improvement Act states that priority, wildlife-dependent public uses should receive enhanced consideration in planning and be facilitated on refuges to the extent they are compatible. The overarching purpose of the program is to connect visitors with refuge resources and develop enjoyment, understanding, and appreciation for natural and cultural resources. Visitors will gain an understanding of the missions of the Service and the National Wildlife Refuge System, and the contribution of the Rhode Island refuges to this system. Similar to the environmental education program, another goal is to

develop a sense of stewardship leading to actions and attitudes that reflect concern and respect for natural and cultural resources. These programs will help us achieve refuge purposes and management objectives, as stated in final Comprehensive Conservation Plans.

## Wildlife Observation and Photography

*Where would the use be conducted?*

Wildlife observation and photography would be conducted from Block Island, Ninigret, Chafee, Sachuest Point, and Trustom Pond refuges on designated trails and developed sites, such as observation platforms and photo blinds (see below).

Certain areas on refuges may be closed to public access at the Refuge Manager's discretion to protect sensitive habitats or species of concern, minimize conflicts with other refuge activities, or due to human health and safety concerns. Some restricted areas are described below for each refuge.

*When would the use be conducted?*

Activities would occur year-round during daylight hours when the refuge is open. Some activities may be allowed after dark under special use permit, or in conjunction with Refuge staff or volunteer-led programs.

*How would the use be conducted?*

In general, wildlife observation and recreational photography activities will be self-guided on designated trails. Access will be by foot, snow shoe, or cross-country skis. Four wheel drive vehicles are allowed only on Block Island and Ninigret refuge barrier beaches, and only outside of seabird nesting season. Parking is to occur in designated parking areas. No dogs, horses, or bicycles will be allowed on the refuges. Canoe and kayak access is allowed for Chafee and Ninigret refuges. Exceptions to these conditions will be evaluated on a case-by-case basis and will require a special use permit at the discretion of the Refuge Manager. Commercial photography requires a special use permit; news photography may require a special use permit at the discretion of the Refuge Manager.

### Wildlife Observation and Photography – Block Island Refuge:

Much of the existing refuge is beach with no designated trails. The public use and access plan, to be developed in 2002 with partners on Block Island, will identify and designate trails through upland areas and sand dunes. The need for other infrastructure (e.g. viewing platforms, photo blinds) will be determined in this plan as well. In general, access will be by foot. Four wheel drive vehicles are allowed on the refuge beach outside of a seasonal closure period for nesting and migrating shorebirds from April 1 to September 15. Other refuge areas may be seasonally restricted if the federally threatened piping plover is observed displaying courtship behavior, or to protect sensitive nesting and roosting areas. The access to Beane Point may be restricted seasonally from approximately May 1 to August 1, to minimize disturbance to nesting wading birds and shorebirds.

### Wildlife Observation and Photography – Ninigret Refuge:

Wildlife observation and photography will continue along the refuge's "Trail Through Time" or along the barrier beach unit. Infrastructure along the trail to support these activities includes the one existing and two planned observation platforms. Bicycling, which had been allowed on the former asphalt runways, will no longer be allowed on the refuge.

The refuge's 22-acre barrier beach parcel is generally access on foot. Four wheel drive vehicles are allowed on the refuge outside of the seasonal closure period (April 1st to September 15th). Nesting areas are marked on the ground each year, and protective fencing is erected to minimize disturbance.

### Wildlife Observation and Photography – Chafee Refuge:

Currently, there is no infrastructure for wildlife observation and photography. We hope to cooperate with the Town of Narragansett and RI DOT to construct a handicapped accessible observation platform at

Middle Bridge. We are also evaluating opportunities to construct a second observation platform at Bridgeport Commons to facilitate wildlife viewing and photography. We will utilize the road in the former Bridgeport Commons subdivision for access, and are evaluating the potential to construct at least one new accessible trail. The final trail location will be designed to avoid sensitive areas and minimize shoreline erosion. Access will be on foot or by canoe and kayak. No other infrastructure is planned.

Wildlife Observation and Photography – Sachuest Point Refuge:

Wildlife observation and photography will continue on three miles of designated trail leading to two observation platforms overlooking the ocean. We will be designating access points down to the water to minimize bank erosion off the headland. We plan to reduce the redundancy in the trail system and will be eliminating portions of Trails 3 and 4 in the future. Additional refuge opportunities are provided on refuge beaches when visitors walk up from the Town of Middletown's Second and Third Beaches; access to these refuge beaches will continue to be on foot only.

Wildlife Observation and Photography – Trustom Pond Refuge:

Wildlife observation and photography will continue on the 3.5 miles of designated trails leading to three observation platforms (two along the shore of Trustom Pond and one on the half-acre farm pond). The parking lot at the visitor contact station will be maintained for trail access. We plan to construct two photo blinds along the pond shore to provide more opportunities for high quality photography. We will be evaluating the redundancy in the trail system and may be eliminating portions of trails in the future. We will also be reconstructing the eastern-most portion of the trail to allow for barrier-free access to the pond.

The Moonstone Beach area of the refuge is open to foot travel only. Above mean high water the refuge is restricted from public access from April 1st to September 15th to protect nesting and migrating piping plover, least tern, and other shorebirds. The closure area is marked on the ground. Parking for Moonstone Beach will continue to be provided and administered by the Town of South Kingstown.

*Why is this use being proposed?*

The 1997 Refuge Improvement Act states that priority, wildlife-dependent public uses should receive enhanced consideration in planning and be facilitated on refuges to the extent they are compatible. The wildlife observation and photography programs promote refuge purposes and management objectives through activities that increase public knowledge and understanding of wildlife and the importance of habitat protection and management. Wildlife observation and photography are two of the six priority, wildlife-dependent recreational uses for the Refuge System. Through these activities, visitors will gain an understanding of the missions of the Service and the National Wildlife Refuge System, and the contribution of the Rhode Island refuges to this system.

## Availability of Resources

### Environmental Education and Interpretation, Wildlife Observation and Photography

#### *Refuge Complex Funding Analysis*

#### New Construction

#### Estimated Costs

Rhode Island Refuge Complex Visitor Center	\$2,000,000*
Sachuest Point Visitor Center Exhibitory	\$ 100,000
Middlebridge Center (Chafee Refuge)	\$ 50,000
New trail (Chafee Refuge)	\$ 10,000
Outdoor Education Sites - 6 new (2 Ninigret, 2 Sachuest Point, 2 Trustom Pond)	\$ 18,000
Kiosks - 4 new (2 Chafee, 2 Sachuest Point)	\$ 12,000
Observation platforms - 3 new, handicapped accessible (2 Ninigret, 1 Chafee)	\$ 30,000**
Photography Blinds - 2 new	\$ 6,000

Total: \$ 2,226,000

\* A separate Environmental Assessment was completed for this project (Rhode Island National Wildlife Refuge Complex, Visitor Center/Administrative Facility, Environmental Assessment, January 2001). The project has been approved for construction, and received special funding through the 1997 Transportation Equity Act (TEA-21). Funds reflect the Visitor Contact portion of the center.

\*\* One of these projects may involve an existing platform to a new location at Sachuest Point Refuge.

#### Predicted Maintenance of Facilities

#### Estimated Costs

##### One-time costs:

Beane Point Facility Renovation (Block Island Refuge)	\$ 200,000 +
Sachuest Point Visitor Center Renovation	\$ 1,309,000 +
Renovating existing trails for handicapped accessibility	\$ 100,000

Total: \$ 1,609,000 (one time costs)

##### Recurring, annual costs:

Regular maintenance of visitor centers:	\$ 25,000
Regular maintenance of kiosks, platforms, education sites, photo blinds, visitor contact facilities, trails, restrooms	\$ 15,000
Equipment, vehicles, and supplies (incl. brochures/trail guides)	\$ 22,000

Total annual recurring costs: \$ 67,000

+ Project has been initiated, primarily funded through Service MMS funds.

#### New Staffing

The following new positions would be dedicated to planning, implementing, and monitoring the public use programs on the refuge complex, including administration of the Refuge Complex Visitor Center and the Sachuest Point Visitor Center.

One full-time (1.0 FTE) GS-12 Outdoor Recreation Planner (Refuge Complex Program Supervisor):	\$55,000
One full-time (1.0 FTE) GS-11 Outdoor Recreation Planner (Field Programs):	\$46,000
One full-time (1.0 FTE) GS-9 Outdoor Recreation Planner (Visitor Center):	\$38,000
One full-time (1.0 FTE) GS-5/7 Administrative Assistant (Visitor Center Support):	\$31,000
One full-time (1.0 FTE) WG-5 Maintenance Worker	\$33,000

The existing refuge positions of Outreach Specialist and Volunteer Coordinator each dedicate approximately (0.5 FTE) to these public use programs.

### Anticipated Impacts of Proposed Actions

On-site activities, particularly group activities, may result in short term impacts by disturbing and displacing wildlife or trampling vegetation. Incidences of littering, vegetation removal, and vandalism may increase as a result of the projected increase in visitation. However, with use restricted to designated trails and other refuge structures, we predict the impacts will be confined to small areas and in areas already affected. We will be reducing the sources of past impacts on wildlife and habitats from dogs, horses, and bicycles, as these will no longer be allowed. Overall, we expect the adverse impacts to be short term and confined to small areas. It is important to note that we have not observed significant resource degradation, long-term consequences, or cumulative effects on any of the refuges with established programs; however, we will develop site specific monitoring criteria to ensure these will not occur. Activities will be modified or curtailed if this is the case. All of the activities are consistent with final Comprehensive Conservation Plans.

New structures will be located with consideration of the long term consequences and cumulative impacts to wildlife and habitats. With the exception of the Rhode Island Refuge Complex Visitor Center, most of the new structures proposed (e.g. kiosks, observation platforms, photography blinds) would each result in habitat losses of less than 1/4 acre. The environmental impacts of the planned Visitor Center/Administrative Office facility were described and analyzed in a separate environmental assessment.

### Public Review and Comment

Public review and comments were solicited in conjunction with the planning process for the Draft Rhode Island National Wildlife Refuge Complex CCP/EA, December 2000 . A compatibility determination for hunting, fishing, wildlife observation and photography, and environmental education and interpretation was distributed to the public as an appendix to the draft CCP/EA, complying with the National Environmental Policy Act and Service policies on writing compatibility determinations and comprehensive conservation plans. The draft CCP/EA, along with a compatibility determination for all priority public uses, was released for a 51 day comment period during January and February 2001.

In December 2001, we completed and distributed a document titled "Summary of, and the Service's Response to, Public Comments Received on the Draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for the Rhode Island National Wildlife Refuge Complex." This document provides a comprehensive summary of comments and our disposition of those comments. The majority of comments regarding wildlife observation and photography and environmental education and interpretation were in support of Alternative B, our Proposed Action. Some concerns were expressed by Block Island residents who did not approve of the proposed infrastructure for Block Island Refuge. In response, as we have noted above, we will be working with our island partners in 2003 to develop a public use and access plan for all of northern Block Island. There were other concerns expressed regarding our proposal to eliminate redundant trails at Sachuest Point Refuge. Our response reiterated our objective to increase the amount of area in contiguous, undisturbed natural habitat to benefit nesting and migratory

birds, while also continuing to maintain wildlife observation and photography opportunities. We pointed out that we would continue to maintain Trails #1, #2, and #5, which provide access along the entire perimeter of the peninsula.

### Determination

The uses are compatible X.

The uses are not compatible \_\_\_.

### Stipulations Necessary to Ensure Compatibility

Activities will be held on designated sites where only minimal direct and short term impacts are predicted, and adverse long term, cumulative impacts are not anticipated. Annual monitoring of sites and programs will be conducted to assess whether objectives are being met and to prevent long-term site degradation. If evidence of unacceptable impacts appear, the programs would be modified or curtailed as deemed necessary by the Refuge Manager.

Certain areas on refuges may be closed to public access at any time at the Refuge Manager's discretion to protect sensitive habitats, species of concern, minimize conflicts with other refuge activities, or due to human health and safety concerns.

Off-trail use or use during a refuge's closed hours requires a special use permit unless the activity is in conjunction with a Refuge staff- or volunteer-led program.

Commercial photography activities require a special use permit.

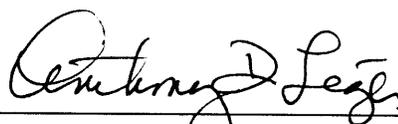
Four wheel drive vehicles are only allowed on Block Island and Ningret refuge barrier beaches, and only outside of the seasonal closure for seabird nesting (April 1 - September 15). All other access to the refuges is by foot, snowshoes, or cross country ski.

### Justification

Environmental education and interpretation, wildlife observation and photography are priority, wildlife-dependent public uses identified by the 1997 Refuge Improvement Act. By definition, these activities have been determined appropriate by law and, when compatible, are to be facilitated on refuges. These programs support the mission of the National Wildlife Refuge System by promoting an understanding and appreciation of natural and cultural resources and their management within a national system of refuges. Our programs will reach out to all segments of the public to expand support for the refuge system. Individual refuge programs will be consistent with, and fully support, the goals and objectives in refuge Comprehensive Conservation Plans.

Signature – Refuge Manager:   
Charles E. Vandemoer

Date: 3/20/02

Concurrence – Regional Chief:   
Anthony Leger

Date: 5/7/2002

Mandatory 15-year Reevaluation

Date: 5/7/2017

---

## References

- Burger, J. 1981. The effect of human activity on birds at a coastal bay. *Biol. Conserv.* 21: 231-241.
- Burger, J. 1986. The effect of human activity on shorebirds in two coastal bays in northeastern United States. *Env. Cons.* 13(2): 123-130.
- Burger, J. and J. Galli. 1987. Factors affecting distribution of gulls (*Larus* spp.) on two New Jersey coastal bays. *Env. Cons.* 14(1): 59-64.
- Cassirer, E.F., A. Breault, P. Clarkson, D.L. Genter, R.I. Goudie, B. Hunt, S.C. Lata, G.H. Mittelhouser, M. McCollough, G. Schirato, and R.L. Wallen. 1993. Status of Harlequin Ducks (*Histrionicus histrionicus*) in North America. Rept. of the Harlequin Duck Working Group. 83pp
- Dufus, D.A. and P.A. Dearden. 1990. Non-consumptive wildlife-oriented recreation: a conceptual framework. *Bio. Cons.* 53: 213-231.
- Goff, G.R., D.J. Decker, and G. Pomerantz. 1988. A diagnostic tool for analyzing visitor impacts on wildlife refuges: A basis for a systematic approach to visitor management. *Trans. Northeast Sect. Wildl. Soc.* 45: 82.
- Gregory, M.R. 1991. The hazards of persistent marine pollution: Drift plastics and conservation islands. *J. Royal Soc. New Zealand.* 21(2):83-100.
- Klein, M.L. 1989. Effects of high levels of human visitation on foraging waterbirds at J.N. "Ding" Darling National Wildlife Refuge. Final research report. Florida Coop. Fish Wildl. Res. Unit, Univ. Florida, Gainesville, Florida. FCFWRU Work Order No. 42. vii+ 103.
- Kuss, F.R. and C.N. Hall. 1991. Ground flora trampling studies: Five years after closure. *Environ. Manage.* 15(5): 715-727.
- Klein, M.L. 1993. Waterbird behavioral responses to human disturbances. *Wildl. Soc. Bull.* 21:31-39.

## Compatibility Determination Rhode Island National Wildlife Refuge Complex

### Use

Waterfowl hunting.

### Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority . Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for each refuge in the Rhode Island National Wildlife Refuge Complex (Refuge Complex) are given below.

#### Block Island National Wildlife Refuge

Date Established: 2 November 1973

Establishing and Acquisition Authorities: Block Island National Wildlife Refuge (Block Island Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or other Purposes.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were for. . . “particular value in carrying out the national migratory bird management program.”

#### Ninigret National Wildlife Refuge

Date Established: 12 August 1970

Establishing and Acquisition Authorities: Ninigret National Wildlife Refuge (Ninigret Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. Additions to the refuge were acquired under the Migratory Bird Conservation Act, 16 U.S.C. 715d.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were established for their. . . “particular value in carrying out the national Migratory Bird Management Program.” Additional lands acquired under the Migratory Bird Conservation Act (16 U.S.C. ss 715d) were. . . “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

#### John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove

Date Established: 5 November 1988 (originally established as Pettaquamscutt Cove National Wildlife Refuge)

Establishing and Acquisition Authorities: John H. Chafee National Wildlife Refuge (Chafee Refuge) was established under an Amendment to the Emergency Wetlands Resources Act (102 Stat. 3177) and the National Wildlife Refuge Administrative Act of 1966, as amended (16 USC 668dd - 668ee; 80 STAT 927).

Purpose(s) for which Refuge was established: The purposes for which the refuge was established and managed for are: “(1) to protect and enhance the populations of black ducks and other waterfowl, geese, shorebirds, terns, wading birds, and other wildlife using the refuge; (2) to provide for the conservation and management of fish and wildlife within the refuge; (3) to fulfill the international treaty obligations of the United States respecting fish and wildlife; and (4) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation” (102 Stat. 3177).

#### Sachuest Point National Wildlife Refuge

Date Established: 3 November 1970

Establishing and Acquisition Authorities: Sachuest Point National Wildlife Refuge (Sachuest Point Refuge) was established under the Refuge Recreation Act of 1962 and the Fish and Wildlife Act of 1956.

Purpose(s) for which Refuge was established: Sachuest Point Refuge was established “...for the development, management, advancement, conservation, and protection of fish and wildlife resources” and

for “(1) incidental fish and wildlife-oriented recreational development; (2) protection of natural resources, and (3) conservation of endangered or threatened species” (Refuge Recreation Act of 1962).

### Trustom Pond National Wildlife Refuge

Date Established: 15 August 1974

Establishing and Acquisition Authorities: The Trustom Pond National Wildlife Refuge (Trustom Pond Refuge) was established under the authority of the Migratory Bird Conservation Act, 16 USC 715-715R and by the Refuge Recreation Act, 16 USC c - 1.

Purpose(s) for which Refuge was established: For lands acquired under the Migratory Bird Conservation Act, as amended, the purpose of the acquisition is “. . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” 16 U.S.C. § 715d (Migratory Bird Conservation Act) and for “. . . (1) incidental fish and wildlife-oriented recreational development; (2) the protection of natural resources; and (3) the conservation of endangered or threatened species. . .” as authorized by the Refuge Recreation Act, 16 USC. c - 1.

### National Wildlife Refuge System Mission

The Mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

### Description of Uses

*Is the use a priority public uses?*

Hunting is identified as a priority, wildlife-dependent recreational use by the National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act; P.L. 105-57).

*Where would the use be conducted?*

- Ninigret Refuge, on the barrier beach marshlands and in the vicinity of Coon Cove;
- Chafee Refuge, in Pettaquamscutt Cove; and
- Trustom Pond Refuge, on a 20 acre upland field.

*When would the use be conducted?*

Hunting would occur according to state regulated seasons.

*Why is the use being proposed?*

Waterfowl hunting helps us achieve refuge purposes and management goals and objectives, as outlined in refuge Comprehensive Conservation Plans. In addition, waterfowl hunting in these areas is an historic, traditional and sustainable activity.

*How would the use be conducted?*

The activity includes waterfowl hunting , as well as access across refuge lands to hunting opportunities on state waters. All hunting would adhere to state regulations for seasons, bag limits, species, and methods of taking. Additional refuge regulations may be determined necessary during development of the required Hunt Plan.

### Ninigret Refuge

Currently, no hunting is allowed on the refuge. However, hunting is a popular activity on the adjacent Ninigret Pond, which is state waters. We are proposing to allow waterfowl hunting and associated dog retrieval, by boat only, in the marshes along the barrier beach parcel. Following restoration of wetland habitat at Coons Cove, we will provide for waterfowl hunting at this site as well. We would administer this hunting opportunity in cooperation with RI DEM.

### Chafee Refuge

Currently, no hunting is allowed on this refuge. We are proposing a waterfowl hunt and associated dog retrieval, by boat access only, in Pettaquamscutt Cove. We would administer this hunting opportunity in cooperation with RI DEM.

### Trustom Pond Refuge

Currently, hunting of Canada geese occurs on 20 acres of refuge upland grasslands (cool season grasslands). Bag limits and seasons are determined by Federal and State regulations, which allow two split seasons for geese. Hunter parking is provided on the refuge and access to the upland fields is by foot only. We would administer this hunting opportunity in cooperation with RI DEM.

## Availability of Resources

*Annual costs required to administer and manage waterfowl hunting activities:*

Maintenance of Parking Areas	\$ 500
Law Enforcement	\$ 7,000(Seasonal LEO)
Signs / Pamphlets	\$ 1,000
Administration	<u>\$ 1,000</u>
TOTAL	\$ 9,500

Some costs would be significantly reduced due to cooperative management with the State. Law enforcement officers from the Complex would have limited involvement.

## Anticipated Impacts of Waterfowl Hunting

Migratory birds are managed on a flyway basis. Hunting regulations are established in each state based on flyway data. Current numbers of such birds would be reduced, within allowable limits, as determined by State and Federal agencies. Direct disturbance to non-target birds would likely occur from hunting, but would be short term. For example, noise from shotguns would cause some birds to flush and go elsewhere. These impacts are of a temporary nature and would also be reduced by the presence of adjacent refuge habitat where hunting does not occur, and where birds can feed and rest relatively undisturbed.

## Public Review and Comment

In the Draft Rhode Island National Wildlife Refuge Complex Comprehensive Conservation Plan/Environmental Assessment (December 2000), a compatibility determination was written which included all six of the priority public uses. After a 51 day public review, and consideration of comments received, we made modifications to several of these programs, including hunting. We are issuing this new, separate compatibility determination for hunting as required by Service policy and because we have decided to offer new waterfowl hunting opportunities on Chafee and Ninigret refuges.

A draft of this Compatibility Determination was made available for public review from December 20, 2001 through January 11, 2002, in conjunction with issuance of our response to public comments on the CCP. All persons on our mailing list received a copy, press releases invited comments, and the draft CD was available for public review at our Charlestown Office. We received comments from four respondents both in support of, and opposed to, waterfowl hunting.

One respondent was concerned about the potential high rate of crippling losses as a result of wounded animals. It is likely that, as refuges are opened to hunting, we will require hunter report cards to assess take and crippling losses.

Two respondents expressed support for waterfowl hunting as proposed. Another respondent objected to the potential for loud noise and gunfire, potential disturbance to waterfowl and other wildlife, and was

opposed to recreational hunting on wildlife refuges. Hunting is one of the six priority public uses on national wildlife refuges. Areas slated for hunting either already have hunting adjacent to them or are the required distance from residences.

The Town of Narragansett pointed out that it is illegal to discharge firearms within the City limit. Our hunt programs will not allow hunting with firearms within the City limits.

**Determination**

The use is compatible X.  
 The use is not compatible \_\_\_.

**Stipulations Necessary to Ensure Compatibility**

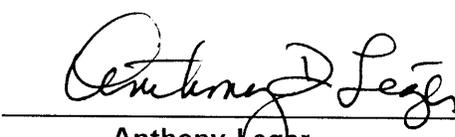
All hunting will adhere to state and local (Town and City ordinances) regulations for hunting seasons, species, bag and possession limits, and method of take. Additional refuge regulations may be identified during development of the Hunt Plan.

**Justification**

Hunting does not materially interfere with or detract from the Mission of the System, and contributes to refuge purposes and management goals and objectives. Hunting is another priority wildlife-oriented activity that provides outstanding recreational benefit to the public and promotes an appreciation of wildlife and the outdoors. Hunting is also a valid means of population control, and can serve to keep populations of wildlife in check. In particular, the hunting program at Trustom Pond Refuge will contribute to the reduction of local resident Canada geese and reduce the public nuisance of these birds. Waterfowl hunting at these refuges will help us to manage populations of resident Canada geese, contributing to the Mission of the Refuge System and the purposes for which these refuges were established. The resources needed to administer this program are well within the means of the refuge to do so.

Signature – Refuge Manager:   
 Charles E. Vandemoer

Date: 3/20/02

Concurrence – Regional Chief:   
 Anthony Leger

Date: 5/7/2002

Mandatory 15-year Reevaluation

Date: 5/7/2017

## References

- Allin, C.C. 1980. Canada geese in Rhode Island. Rhode Island Dept. of Env. Manage. Div. Fish and Wildl. Pam. no:12. 46pp.
- Atlantic Waterfowl Council. 1981. Canada goose subcommittee nuisance goose flock evaluation and management plan. AWC minutes 10pp.
- Burger, J. 1981. The effect of human activity on birds at a coastal bay. *Biol. Conserv.* 21: 231-241.
- Burger, J. 1986. The effect of human activity on shorebirds in two coastal bays in northeastern United States. *Env. Cons.* 13(2): 123-130.
- Hestbeck, J.B., D.H. Rusch, and R.A. Malecki. 1990. Estimating population parameters for geese. *Trans. N.A. Wildl. Nat. Res Conf.* 55:350-373.
- Hindman, L.J., and F. Ferrigno. 1990. Atlantic flyway goose population status and management. *Trans. N.A. Wildl. Nat. Res Conf.* 55:293-311.
- Klein, M.L. 1993. Waterbird behavioral responses to human disturbances. *Wildl. Soc. Bull.* 21:31-39.
- Pfister, C., B.A. Harrington, and M. Lavine. 1992. The impact of human disturbance on shorebirds at a migration staging area. *Bio. Cons.* 60: 115-126.
- Trost, R.E. and R.A. Malecki. 1985. Population trends in Atlantic flyway Canada geese: implications for management. *Wildl. Soc. Bull.* 13:502-508.
- United States Fish and Wildlife Service. 1985. *Refuge Manual*. Wash. D.C.: U.S. Govt. Print. Off
- U.S. Fish and Wildlife Service. 1989. *Hunting Plan for Trustom Pond National Wildlife Refuge*. Ninigret NWR. Charlestown, RI. 39pp.
- U.S. Fish and Wildlife Service. 1994. *Midwinter waterfowl survey-Atlantic Flyway*. in press. 10pp.
- United States Fish and Wildlife Service. 1997. *National Wildlife Refuge System Improvement Act of 1997*. Public Law 105-57-OCT. 9, 1997.

## Compatibility Determination Rhode Island National Wildlife Refuge Complex

### Uses

Fishing

### Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority. Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for each refuge in the Rhode Island National Wildlife Refuge Complex (Refuge Complex) are given below.

#### Block Island National Wildlife Refuge

Date Established: 2 November 1973

Establishing and Acquisition Authorities: Block Island National Wildlife Refuge (Block Island Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or other Purposes.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were for. . . “particular value in carrying out the national migratory bird management program.”

#### Ninigret National Wildlife Refuge

Date Established: 12 August 1970

Establishing and Acquisition Authorities: Ninigret National Wildlife Refuge (Ninigret Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. Additions to the refuge were acquired under the Migratory Bird Conservation Act, 16 U.S.C. 715d.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were established for their. . . “particular value in carrying out the national Migratory Bird Management Program.” Additional lands acquired under the Migratory Bird Conservation Act (16 U.S.C. ss 715d) were. . . “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

#### John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove

Date Established: 5 November 1988 (originally established as Pettaquamscutt Cove National Wildlife Refuge)

Establishing and Acquisition Authorities: John H. Chafee National Wildlife Refuge (Chafee Refuge) was established under an Amendment to the Emergency Wetlands Resources Act (102 Stat. 3177) and the National Wildlife Refuge Administrative Act of 1966, as amended (16 USC 668dd - 668ee; 80 STAT 927).

Purpose(s) for which Refuge was established: The purposes for which the refuge was established and managed for are: “(1) to protect and enhance the populations of black ducks and other waterfowl, geese, shorebirds, terns, wading birds, and other wildlife using the refuge; (2) to provide for the conservation and management of fish and wildlife within the refuge; (3) to fulfill the international treaty obligations of the United States respecting fish and wildlife; and (4) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation” (102 Stat. 3177).

#### Sachuest Point National Wildlife Refuge

Date Established: 3 November 1970

Establishing and Acquisition Authorities: Sachuest Point National Wildlife Refuge (Sachuest Point Refuge) was established under the Refuge Recreation Act of 1962 and the Fish and Wildlife Act of 1956.

Purpose(s) for which Refuge was established: Sachuest Point Refuge was established “...for the development, management, advancement, conservation, and protection of fish and wildlife resources” and

for “(1) incidental fish and wildlife-oriented recreational development; (2) protection of natural resources, and (3) conservation of endangered or threatened species” (Refuge Recreation Act of 1962).

### Trustom Pond National Wildlife Refuge

Date Established: 15 August 1974

Establishing and Acquisition Authorities: The Trustom Pond National Wildlife Refuge (Trustom Pond Refuge) was established under the authority of the Migratory Bird Conservation Act, 16 USC 715-715R and by the Refuge Recreation Act, 16 USC c - 1.

Purpose(s) for which Refuge was established: For lands acquired under the Migratory Bird Conservation Act, as amended, the purpose of the acquisition is “. . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” 16 U.S.C. § 715d (Migratory Bird Conservation Act) and for “. . . (1) incidental fish and wildlife-oriented recreational development; (2) the protection of natural resources; and (3) the conservation of endangered or threatened species. . .” as authorized by the Refuge Recreation Act, 16 USC. c - 1.

### National Wildlife Refuge System Mission

The Mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

ternational treaty obligations of the United States respecting fish and wildlife; and (4) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation” (102 Stat. 3177).

### Description of Fishing

*Is the use a priority public use?*

Yes. Fishing was identified as a priority, wildlife-dependent recreational use by the National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act; P.L. 105-57).

*What is the use?*

Surf fishing and river shoreline fishing from refuge lands into state waters, and access to spear fishing, crabbing and shellfishing (both commercial and recreational), which also occur in state waters. There is no fresh water fishing on any of the Rhode Island Complex Refuges.

*Where would the use be conducted?*

Block Island, Ninigret, Chafee, Sachuest Point, and Trustom Pond Refuges (see below).

*When would the use be conducted?*

The refuges are open to fishing year round, but most activity occurs during Spring, Summer, and Fall. The only exception to the year round activity is Trustom Pond Refuge’s Moonstone Beach which is closed to all access above mean high water from April 1 to September 15 to protect the federally threatened piping plover and state-threatened least tern during their nesting seasons. Other fishing areas may be closed in the future at the Refuge Manager’s discretion in order to minimize long term, cumulative impacts to wildlife and habitats, or to protect human health and safety.

Night fishing will continue at Sachuest Point Refuge only. The other refuges are only open to fishing from sunrise to sunset.

*Why is the use being proposed?*

Fishing is a priority, wildlife dependent public use, and is a traditional, sustainable activity in coastal Rhode Island. A high quality fishing program helps us achieve refuge purposes and management objectives as determined by each refuge's Comprehensive Conservation Plan.

*How would the use be conducted?*

All recreational and commercial fishing is in accordance with state regulations, with additional refuge specific requirements noted below. All access to fishing sites will be on foot or by boat, except as noted for Block Island and Ninigret refuges. In general, we will not support fishing derbies or contests from refuge lands, but the Refuge Manager retains authority to reconsider on a case-by-case basis.

**Block Island Refuge**

Access to surf fishing is on foot, by boat, or seasonally by four wheel drive vehicles. We will close refuge lands above the mean high water mark to vehicle access from April 1 to September 15 to protect nesting and migrating shorebirds and to reduce impacts to the beach ecosystem. The beach will remain open to foot travel subject to management requirements to protect Threatened or Endangered Species and species of concern. In 2003, we will prepare a public use and access plan with our island partners for all of northern Block Island. Other fishing opportunities may be evaluated in this plan. Significant changes to what is proposed herein will require a new compatibility determination.

**Ninigret Refuge**

Access to surf fishing occurs on the barrier beach parcel and is on foot, by boat, or by four wheel drive vehicle. A sand road behind the dunes crosses approximately 1,200 feet of refuge land and is open year round to vehicles. Many people utilize this sand road to access fishing sites on state and refuge beaches or to access the Charlestown breachway, which lies off refuge. The refuge beach and adjacent state Ninigret Conservation Area beach are seasonally closed to vehicles from April 1 to September 15 to protect nesting piping plover.

On the mainland portion of the refuge, recreational salt water fishing and shellfish harvesting occur in Ninigret Pond, accessed over refuge lands on foot on designated trails. Commercial harvesters are known to cross the refuge to access the pond, in particular, to gain access to Foster's Cove.

We will continue to allow access for recreational and commercial shellfishing in Ninigret Pond on designated trails only, and in accordance with state regulations. People engaged in commercial shellfishing will be required to obtain a special use permit. Shoreline fishing in Ninigret Pond will be allowed at certain established access points on the refuge to prevent wildlife disturbance and shoreline erosion.

**Chafee Refuge**

Saltwater fishing occurs in the Narrow River by boat, and, to a limited extent, on land from accessible shoreline areas (Middlebridge Road). While the waters of Narrow River are currently closed to shellfish harvesting, the potential for this use in the future exists.

The refuge will allow fishing from boats or from the shoreline, but only from designated access points located to minimize further bank erosion and impacts on the refuge saltmarsh. We intend to work with RI DEM on an outreach campaign to educate the public on the impact of excessive motorboat and jet ski speed on refuge shorelines, marshlands, and wildlife.

**Sachuest Point Refuge**

Surf fishing occurs along the refuge shoreline in the Atlantic Ocean and the Sakonnet River. Target species include striped bass, bluefish, tautog, and scup. Species like striped bass and bluefish are

migratory and fishing pressure is linked to the “opportunistic” presence of fish, whereas scup and tautog are resident to the area and fishing pressure is fairly constant from spring through the fall.

Surf fishing is allowed 24 hours a day on the refuge, in accordance with state regulations. A new refuge regulation will require spear guns to be unloaded and encased while being transported across the refuge. Shoreline access points will be designated and established to reduce erosion impacts and better enforce restrictions. We will also produce new interpretive and regulatory literature in other languages to accommodate the cultural diversity of anglers using Sachuest Point.

The Refuge will implement a fishing permit program to maintain fishing opportunities while minimizing inappropriate refuge nighttime uses. Additionally, we plan to initiate a study to evaluate the impacts to refuge wildlife from night time fishing, with particular interest in the effects of the night spot lights used by anglers.

Because of a significant and adverse litter problem on shorelines used primarily by fishermen, an aggressive litter control program will be instituted. If the litter problem is not abated, restrictions on shorelines open for fishing may be instituted.

#### Trustom Pond Refuge

Surf fishing occurs seasonally in the Atlantic Ocean from the refuge’s barrier beach shoreline. As noted above, the refuge beach is closed from April 1 to September 15 to protect nesting piping plover and least tern. Trustom Salt Pond will remain closed to fishing year round. No additional infrastructure is proposed.

### Availability of Resources

*Funding/annual costs required to administer and manage fishing activities*

#### Maintenance (recurring)

shoreline access points \$ 500/yr

#### Administration

Law Enforcement \$ 7,000/yr (0.65 FTE seasonal)

Signs/pamphlets (regulatory, multi-cultural) \$ 500/yr

Monitoring of Program and Administration  
of Special Use Permits/Permit System \$ 1,000/yr (0.1 FTE of GS 9)

Research: Night Fishing @ Sachuest Point \$ 30,000

TOTAL \$ 30,000 one time  
\$ 9,000/recurring annually

Collections from fishing permits on the Sachuest Point NWR will partially offset some costs.

### Anticipated Impacts

Fishing activities may impact refuges when anglers trample vegetation, create unauthorized trails, or cause erosion of the shorelines. Some disturbance to roosting and feeding shorebirds probably occurs (Burger 1981), but is considered minimal. Discarded fishing line and other fishing litter can entangle migratory birds and marine mammals and cause injury and death (Gregory 1991). Additionally, litter impacts the visual experience of refuge visitors (Marion and Lime 1986). Several enforcement issues involving fishing also impact the refuge, including: illegal taking of fish (undersized, over limit), littering, illegal fires at night, and disorderly conduct. Many ethnic groups use the refuges to fish, Sachuest Point in particular, but may not be able to read the current regulatory signs printed in English, further exacerbating the above-mentioned problems. In the past, the small refuge staff has been unable to

consistently monitor activities and enforce refuge regulations, especially the night fishing at Sachuest Point refuge, but recent staff additions should minimize this concern in the future.

We expect a net beneficial impact from providing high quality fishing opportunities as fishing is a very popular, historic, and traditional public use in Rhode Island.

### Public Review and Comment

Public review and comments were solicited in conjunction with the planning process for the Draft Rhode Island National Wildlife Refuge Complex Comprehensive Plan and Environmental Assessment (CCP/EA) (December 2000). A compatibility determination for hunting, fishing, wildlife observation and photography, and environmental education and interpretation was distributed to the public as an appendix to the draft CCP/EA, complying with the National Environmental Policy Act and Service policies on writing compatibility determinations and comprehensive conservation plans. These were released for a 51-day comment period in January and February 2001. No comments were received in opposition to fishing.

### Determination

The use is compatible X.

The use is not compatible \_\_\_.

### Stipulations Necessary to Ensure Compatibility

Sachuest Point Refuge will be staffed year-round to adequately manage a quality fishing program and enforce refuge regulations. A new refuge regulation will be developed to ensure that spear fishing gear is encased and unloaded while carried across the refuge. Also at Sachuest Point, regulatory signs and fishing program information will be printed in languages of the various ethnic groups using the refuge to explain refuge policy and fishing regulations.

An aggressive program of information, signing, and enforcement will be implemented to address the litter problem. Yearly progress assessments will be required and will be used to help determine whether additional restrictions on public uses including fishing will be necessary to address the litter issues.

A fishing permit system will be instituted to gain control over inappropriate refuge uses and to insure high quality fishing opportunities will be maintained.

Trustom Salt Pond will remain closed to fishing. Moonstone Beach on Trustom Pond refuge will remain closed to all public access each year from April 1 to September 15 to protect nesting piping plover and least tern.

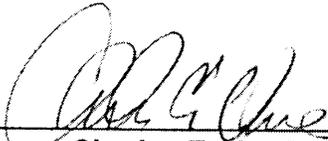
Ninigret Refuge's barrier beach and Block Island refuge beaches will be closed to four wheel drive vehicles from April 1 to September 15 to protect nesting piping plover and other shorebirds and to reduce impacts to the dune structure and vegetation.

Fishing access points to all refuge shorelines will be designated to reduce unauthorized trail use and prevent against erosion. Monitoring will be conducted on all refuges to insure that fishing remains compatible to the refuge purposes and to determine whether modifications in fishing management are necessary. All commercial fishing will require a special use permit.

### Justification

Fishing is a priority wildlife-dependent activity that provides substantial recreational benefits to the public. Surf fishing and shellfishing are traditional forms of outdoor recreation in Rhode Island. This activity does not materially interfere with or detract from the Mission of the National Wildlife Refuge System. Further, providing fishing opportunities supports refuge purposes and management objectives in refuge Comprehensive Conservation Plans.

Signature – Refuge Manager:

  
\_\_\_\_\_  
Charles E. Vandemoer

Date: 3/20/02

Concurrence – Regional Chief:

  
\_\_\_\_\_  
Anthony Leger

Date: 5/7/2002

Mandatory 15-year Reevaluation

Date: 5/7/2017

---

References

- Burger, J. 1981. The effect of human activity on birds at a coastal bay. *Biol. Conserv.* 21: 231-241.
- Burger, J. 1986. The effect of human activity on shorebirds in two coastal bays in northeastern United States. *Env. Cons.* 13(2): 123-130.
- Burger, J. and J. Galli. 1987. Factors affecting distribution of gulls (*Larus* spp.) on two New Jersey coastal bays. *Env. Cons.* 14(1): 59-64.
- Goff, G.R., D.J. Decker, and G. Pomerantz. 1988. A diagnostic tool for analyzing visitor impacts on wildlife refuges: A basis for a systematic approach to visitor management. *Trans. Northeast Sect. Wildl. Soc.* 45: 82.
- Gregory, M.R. 1991. The hazards of persistent marine pollution: Drift plastics and conservation islands. *J. Royal Soc. New Zealand.* 21(2):83-100.
- Klein, M.L. 1989. Effects of high levels of human visitation on foraging waterbirds at J.N. "Ding" Darling National Wildlife Refuge. Final research report. Florida Coop. Fish Wildl. Res. Unit, Univ. Florida, Gainesville, Florida. FCFWRU Work Order No. 42. vii+ 103.
- Kuss, F.R. and C.N. Hall. 1991. Ground flora trampling studies: Five years after closure. *Environ. Manage.* 15(5): 715-727.
- Klein, M.L. 1993. Waterbird behavioral responses to human disturbances. *Wildl. Soc. Bull.* 21:31-39.
- Marion, J.L. and D.W. Lime. 1986. Recreational resource impacts: visitor perceptions and management responses. pp 229-235. Kulhavy, D.L. and R.N. Conner, eds. *in* Wilderness and natural areas in the eastern United States: a management challenge. Center for Applied Studies, Austin State Univ. Nacogdoches, TX. 416pp.
- Pfister, C., B.A. Harrington, and M. Lavine. 1992. The impact of human disturbance on shorebirds at a migration staging area. *Bio. Cons.* 60: 115-126.
- United States Fish and Wildlife Service. 1985. *Refuge Manual*. Wash. D.C.: U.S. Govt. Print. Off
- United States Fish and Wildlife Service. 1992. *Fisheries USA. The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service*. Wash. D.C. 11pp.
- United States Fish and Wildlife Service. 1997. *National Wildlife Refuge System Improvement Act of 1997. Public Law 105-57-OCT. 9, 1997.*

## Compatibility Determination Rhode Island National Wildlife Refuge Complex

### Use

#### Trapping

#### Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority . Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for each refuge in the Rhode Island National Wildlife Refuge Complex (Refuge Complex) are given below.

#### Block Island National Wildlife Refuge

Date Established: 2 November 1973

Establishing and Acquisition Authorities: Block Island National Wildlife Refuge (Block Island Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or other Purposes.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were for. . . “particular value in carrying out the national migratory bird management program.”

#### Ninigret National Wildlife Refuge

Date Established: 12 August 1970

Establishing and Acquisition Authorities: Ninigret National Wildlife Refuge (Ninigret Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. Additions to the refuge were acquired under the Migratory Bird Conservation Act, 16 U.S.C. 715d.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were established for their. . . “particular value in carrying out the national Migratory Bird Management Program.” Additional lands acquired under the Migratory Bird Conservation Act (16 U.S.C. ss 715d) were. . . “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

#### John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove

Date Established: 5 November 1988 (originally established as Pettaquamscutt Cove National Wildlife Refuge)

Establishing and Acquisition Authorities: John H. Chafee National Wildlife Refuge (Chafee Refuge) was established under an Amendment to the Emergency Wetlands Resources Act (102 Stat. 3177) and the National Wildlife Refuge Administrative Act of 1966, as amended (16 USC 668dd - 668ee; 80 STAT 927).

Purpose(s) for which Refuge was established: The purposes for which the refuge was established and managed for are: “(1) to protect and enhance the populations of black ducks and other waterfowl, geese, shorebirds, terns, wading birds, and other wildlife using the refuge; (2) to provide for the conservation and management of fish and wildlife within the refuge; (3) to fulfill the international treaty obligations of the United States respecting fish and wildlife; and (4) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation” (102 Stat. 3177).

#### Sachuest Point National Wildlife Refuge

Date Established: 3 November 1970

Establishing and Acquisition Authorities: Sachuest Point National Wildlife Refuge (Sachuest Point Refuge) was established under the Refuge Recreation Act of 1962 and the Fish and Wildlife Act of 1956.

Purpose(s) for which Refuge was established: Sachuest Point Refuge was established “...for the development, management, advancement, conservation, and protection of fish and wildlife resources” and for “(1) incidental fish and wildlife-oriented recreational development; (2) protection of natural resources, and (3) conservation of endangered or threatened species” (Refuge Recreation Act of 1962).

Trustom Pond National Wildlife Refuge

Date Established: 15 August 1974

Establishing and Acquisition Authorities: The Trustom Pond National Wildlife Refuge (Trustom Pond Refuge) was established under the authority of the Migratory Bird Conservation Act, 16 USC 715-715R and by the Refuge Recreation Act, 16 USC c - 1.

Purpose(s) for which Refuge was established: For lands acquired under the Migratory Bird Conservation Act, as amended, the purpose of the acquisition is “. . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” 16 U.S.C. § 715d (Migratory Bird Conservation Act) and for “. . . (1) incidental fish and wildlife-oriented recreational development; (2) the protection of natural resources; and (3) the conservation of endangered or threatened species. . .” as authorized by the Refuge Recreation Act, 16 USC. c - 1.

## National Wildlife Refuge System Mission

The Mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

## Description of Use

*What is the use? Is the use a priority public use?*

The Rhode Island National Wildlife Refuge Complex will initiate and maintain a trapping program to:

- a) remove animals adversely affecting the productivity of endangered and threatened species and migratory birds;
- b) minimize furbearer damage to physical facilities including dikes, refuge water control structures, roads, and other facilities;
- c) minimize the competition with or interaction among wildlife populations and species which conflict with refuge objectives; and,
- d) minimize the occurrence of high animal population densities which have the potential to transmit contagious diseases to humans, furbearer populations, other wildlife species, or domestic animals.

Trapping is not identified in the National Wildlife Refuge System Improvement Act of 1997 as a priority public use.

*Where would the use be conducted?*

Trapping will occur on all five refuges within the Rhode Island National Wildlife Refuge Complex. In support of the piping plover and least tern management programs, trapping will occur on the beaches, foredunes and backdunes at Trustom Pond, Ninigret, and Block Island refuges. Other trapping activities will occur in areas where furbearers have exceeded desirable population levels or are causing damage to dikes, refuge water control structures, roads, and other facilities. The specific areas to be trapped will be delineated in a Rhode Island National Wildlife Refuge Complex Furbearer Management Plan.

*When would the use be conducted?*

Trapping will occur during the state furbearer trapping season, generally November 1 through January 31, inclusive, each year, or during the beaver season, generally December 1 through March 15, inclusive, each year. However, there may be situations requiring trapping outside of these state seasons when necessary to protect public health and safety or significant refuge structures. Trapping associated with the piping plover and least tern programs would occur just prior to and during these species' nesting seasons, approximately March through August of each year. The refuge will coordinate with the Rhode Island Department of Environmental Management (RI DEM) prior to allowing trapping to occur outside the normal state trapping seasons.

*How would the use be conducted?*

State-licensed trappers will operate under a refuge special use permit following refuge regulations. Refuge regulations will include the state specifications for trap type. We will require traps to be checked daily. Trappers will contact the refuge at least once each month to report harvest numbers and species. When necessary to insure management objectives are met, we will arrange for individual state-licensed trappers to remove problem animals. We will coordinate with RI DEM prior to each trapping season. The specific refuge trapping regulations and the procedures that will be used to conduct the refuge trapping program will be listed and explained in the Rhode Island National Wildlife Refuge Complex Furbearer Management Plan.

All trapping will occur in accordance with state regulations, except:

- when necessary to protect species of special management concern; or
- when necessary to protect public health and safety, or refuge facilities.

*Why is the use being proposed?*

Trapping helps us achieve refuge purposes and management objectives, specifically those which direct us to manage for increased productivity of threatened or endangered species or migratory birds. Predation on adults and chicks has consistently been a major problem at our piping plover and tern restoration sites, and trapping has been an effective tool for managing their predators. Trapping is recommended in the 1996 Revised Recovery Plan for Piping Plover as part of an integrated and diverse strategy for protecting piping plover populations.

Rhode Island state law prohibits the relocation of wildlife. Problem animals can not be tranquilized or live-trapped and moved elsewhere. Trapping is one management tool for dealing with problem animals on-site.

Allowing state-licensed trappers to operate leaves our refuge staff with more time to accomplish other high priority tasks. Also, experienced commercial trappers will be more effective and efficient as they bring knowledge and skill in trapping, which our refuge staff may lack.

## Availability of Resources

Keeping the Rhode Island Refuges open to trapping for management purposes would not affect our Refuge Complex budget. Over the past five years, the Refuge Complex has spent an average of \$500/year on its trapping program with generally one trapper operating each year.

There are no special equipment, facilities, or improvements needed to implement this trapping program; nor will there be any maintenance costs. In the future, we expect only minor administrative costs associated with trapping. For example, we may find it necessary to advertise trapping opportunities in order to attract interest. Some staff time may be devoted to contacting trappers, writing permits, inspecting permits, and monitoring trapping results. We expect that conducting these activities will require less than one-tenth of a work-year for one staff member (0.1 FTE). We expect significant savings in staff time and equipment costs by having experienced state-licensed trappers remove nuisance animals - work that otherwise would need to be done by refuge staff.

## Anticipated Impacts of Proposed Actions

Trapping activities will cause minor disturbance to wildlife not targeted for removal. The set-up and checking of traps may result in short term, very local disturbances to wildlife in the area. With experienced trappers, however, we expect no or negligible losses to non-target species. For those species targeted for removal, the extent of trapping we are proposing will not eliminate local populations, but will help control population growth and problem individuals.

We expect a net beneficial impact to species of concern that we are trying to protect, as trapping their predators should contribute to lower mortality rates and higher productivity and fledgling rates. In addition, trapping to remove individual nuisance animals will provide us flexibility in protecting the health and safety of visitors, and refuge structures and facilities.

### Public Review and Comment

In the draft CCP/EA (December 2000), trapping was identified as a preferred management strategy for protecting populations of piping plover and least tern. This document was distributed for public review and comment over 51 days in January and February 2001.

In addition, a draft of this Compatibility Determination (CD) was made available for public review from December 20, 2001 through January 11, 2002, in conjunction with issuance of our response to public comments on the CCP. All persons on our mailing list received a copy, press releases invited comments, and the draft CD was available for public review at our Charlestown Office. Comments were received both in support of and opposed to trapping.

We received five written letters regarding trapping. Three respondents favored the trapping proposal to protect facilities, public health, and trust resources. One of these respondents suggested entering into a co-operative monitoring program for mink to determine population status. The Service will not enter into a long term mink study since it is outside the realm of the trapping effort (no mink are trapped in the area requested for a study), and higher priority tasks on the Complex compete for the limited staff and funding available.

The fourth respondent was favorable for trapping, but felt that trapping should be used to enhance waterfowl production. The Service will not consider trapping solely to enhance waterfowl production. The Refuges in the Complex are migratory bird refuges, primarily providing nesting and feeding habitat; very little nesting occurs on refuge lands.

The fifth respondent expresses “significant concerns” regarding trapping. They felt that trapping was to be the sole practice in protecting nesting piping plover, and urged the Service to use other means to protect plovers, such as fencing. The Service does make extensive use of fencing for piping plover and least tern protection. Fencing is very effective in protecting nesting areas, and we will continue to use this tool. Trapping will only be used when deemed necessary, and in conjunction with other management tools.

The respondent also raised concern with the use of leg-hold traps and the potential for non-target animals to be effected. The trapping program requires the use of licensed trappers who will follow state regulations and approved methods for trapping.

Another concern dealt with the requirement, in most cases, to check traps daily. We have modified the CD to require daily checks of all traps.

In regards to trapping for protection of facilities, the respondent encouraged the Service to use other methods (such as “beaver deceivers” or “beaver baffles”) to solve the problem in non-lethal means. The Service has modified the CD to indicate that trapping will be pursued only after assessing whether reasonable alternatives exist to solve the issue using non-lethal means.

### Determination

The use is compatible X.

The use is not compatible \_\_\_.

### Stipulations Necessary to Ensure Compatibility

Trapping will only be conducted under a special use permit to achieve a specific management purpose, such as to protect species of management concern, to protect refuge facilities and resources, or to reduce risks to public health and safety. Reasonable and feasible non-lethal means will be considered before implementing trapping efforts. Traps will be checked at least once on a 24 hour basis. Trappers will contact the refuge at least once every month during the trapping season to report harvest numbers and species.

### Justification

Trapping does not materially interfere with or detract from the Mission of the Refuge System, and contributes to refuge purposes of the Rhode Island National Wildlife Refuge Complex by protecting endangered and threatened species, migratory birds and wildlife populations. In addition, trapping contributes to the refuge purposes by limiting damage to dikes, refuge water control structures, roads, and other facilities, by minimizing the competition between wildlife populations and species which conflict with refuge objectives, and by reducing high population densities which have the potential to transmit contagious diseases to humans, furbearers, other wildlife species, or domestic animals.

Signature – Refuge Manager:   
Charles E. Vandemoer

Date: 3/20/12

Concurrence – Regional Chief:   
Anthony Leger

Date: 5/9/2012

Mandatory 10-year Reevaluation

Date: 5/9/2012

### References

U.S. Fish and Wildlife Service. 1996. Piping Plover (*Charadrius melodus*) Revised Recovery Plan. Hadley, MA. 45 pp.

U.S. Fish and Wildlife Service. 2000. Rhode Island National Wildlife Refuge Complex, Draft Comprehensive Conservation Plan and Environmental Assessment. Hadley, MA.

Pre-Acquisition Compatibility Determination  
Rhode Island National Wildlife Refuge Complex  
(For use on lands approved for acquisition, but not yet acquired  
into the Rhode Island National Wildlife Refuge Complex)

### Uses

Hunting and fishing.

### Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority. Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for each refuge in the Rhode Island National Wildlife Refuge Complex (Refuge Complex) are given below.

#### Block Island National Wildlife Refuge

Date Established: 2 November 1973

Establishing and Acquisition Authorities: Block Island National Wildlife Refuge (Block Island Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or other Purposes.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were for: . . . “particular value in carrying out the national migratory bird management program.”

#### Ninigret National Wildlife Refuge

Date Established: 12 August 1970

Establishing and Acquisition Authorities: Ninigret National Wildlife Refuge (Ninigret Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. Additions to the refuge were acquired under the Migratory Bird Conservation Act, 16 U.S.C. 715d.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were established for their: . . . “particular value in carrying out the national Migratory Bird Management Program.” Additional lands acquired under the Migratory Bird Conservation Act (16 U.S.C. ss 715d) were: . . . “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

#### John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove

Date Established: 5 November 1988 (originally established as Pettaquamscutt Cove National Wildlife Refuge)

Establishing and Acquisition Authorities: John H. Chafee National Wildlife Refuge (Chafee Refuge) was established under an Amendment to the Emergency Wetlands Resources Act (102 Stat. 3177) and the National Wildlife Refuge Administrative Act of 1966, as amended (16 USC 668dd - 668ee; 80 STAT 927).

Purpose(s) for which Refuge was established: The purposes for which the refuge was established and managed for are: “(1) to protect and enhance the populations of black ducks and other waterfowl, geese, shorebirds, terns, wading birds, and other wildlife using the refuge; (2) to provide for the conservation and management of fish and wildlife within the refuge; (3) to fulfill the international treaty obligations of the United States respecting fish and wildlife; and (4) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation” (102 Stat. 3177).

#### Sachuest Point National Wildlife Refuge

Date Established: 3 November 1970

Establishing and Acquisition Authorities: Sachuest Point National Wildlife Refuge (Sachuest Point Refuge) was established under the Refuge Recreation Act of 1962 and the Fish and Wildlife Act of 1956.

Purpose(s) for which Refuge was established: Sachuest Point Refuge was established "...for the development, management, advancement, conservation, and protection of fish and wildlife resources" and for "(1) incidental fish and wildlife-oriented recreational development; (2) protection of natural resources, and (3) conservation of endangered or threatened species" (Refuge Recreation Act of 1962).

### Trustom Pond National Wildlife Refuge

Date Established: 15 August 1974

Establishing and Acquisition Authorities: The Trustom Pond National Wildlife Refuge (Trustom Pond Refuge) was established under the authority of the Migratory Bird Conservation Act, 16 USC 715-715R and by the Refuge Recreation Act, 16 USC c - 1.

Purpose(s) for which Refuge was established: For lands acquired under the Migratory Bird Conservation Act, as amended, the purpose of the acquisition is "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. § 715d (Migratory Bird Conservation Act) and for "... (1) incidental fish and wildlife-oriented recreational development; (2) the protection of natural resources; and (3) the conservation of endangered or threatened species. . ." as authorized by the Refuge Recreation Act, 16 USC. c - 1.

### National Wildlife Refuge System Mission

The Mission of the National Wildlife Refuge System is "to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."

### Description of Use

*What is the use?*

This pre-acquisition compatibility determination serves as our "statement of intent" to allow hunting and fishing to continue, where they are pre-existing and owner-authorized, on lands approved for Service acquisition, but not yet acquired. The specific parcels covered by this compatibility determination have been identified in the final Land Protection Plan (LPP) for the Rhode Island National Wildlife Refuge Complex, April 2002.

Within the refuge acquisition boundary, most of the parcels are privately owned and currently unimproved, and we are aware of only a few existing public use opportunities. As we pursue acquisition of individual parcels we will be able to verify whether others exist. We are aware of the following wildlife-dependent public uses on refuge parcels identified for acquisition:

- Block Island Refuge: deer hunting, upland game hunting, and surf fishing
- Ninigret Refuge: waterfowl hunting, deer hunting, and fishing
- Chafee Refuge: fishing and waterfowl hunting
- Sachuest Point Refuge: surf fishing
- Trustom Pond Refuge: surf fishing, Canada goose hunting, deer hunting.

*Are the uses priority public uses?*

Yes, hunting and fishing were identified as priority, wildlife-dependent public uses by the National Wildlife Refuge Improvement Act of 1997 (Refuge Improvement Act, P.L. 105-57).

*Where would the use be conducted?*

The LPP identifies new acquisition boundaries for all five refuges in the Refuge Complex. The LPP also delineates the specific parcels, using town tax records, approved for acquisition by the Service for each refuge. Parcels will be acquired from willing sellers only, as funding allows.

*When would the use be conducted?*

All opportunities would be implemented consistent with the compatibility determinations already in place for existing refuge lands. Compatibility determinations for these priority public uses were recently updated and approved in conjunction with the preparation of Comprehensive Conservation Plans (CCPs) for each of the five refuges in the Refuge Complex. In general, refuges are open from sunrise to sunset for these activities; the only exception is night fishing at Sachuest Point Refuge. Hunting and fishing activities would be subject to state seasons and specific refuge regulations.

*How would the use be conducted?*

All opportunities would be implemented consistent with the compatibility determinations already in place for existing refuge lands, refuge regulations, and applicable State and local laws.

*Why is the use being proposed?*

These priority public uses may already be occurring on privately owned lands, with the owners permission. These uses are also identified as priority uses by the National Wildlife Refuge System Improvement Act of 1997.

### Availability of Resources

No additional Refuge resources would be devoted to these uses; that is, no additional infrastructure would be developed to accommodate these new areas until compatibility determinations are revised in response to new information or until we revise individual step-down management plans. Any proposed expenditures for improving public use opportunities in these areas would be identified as projects in a Visitor Services Plan. Acquisition and posting of these parcels will occur regardless of their potential for wildlife-dependent public use.

### Anticipated Impacts of Proposed Actions

We expect only minimal impacts from continuing to allow these priority public uses, similar to those impacts described in the compatibility determinations for existing refuge lands.

### Public Review and Comment

As part of the CCP/EA process for the Rhode Island Refuge Complex, this compatibility determination has undergone extensive public review, including a 51 day public comment period, following release of the draft CCP/EA in January 2001. We did not receive any comments specifically pertaining to this pre-acquisition compatibility determination, only general comments about the need to continue to provide priority public uses to the extent possible on existing refuge lands.

### Determination

The uses are compatible X.

The uses are not compatible \_\_\_.

### Stipulations Necessary to Ensure Compatibility

The following conditions must all be met before allowing existing, priority, wildlife-dependent public use to continue on an interim basis on newly acquired lands:

- 1) There are no indirect, direct, or cumulative threats anticipated to human health or safety;
- 2) There are no indirect, direct, or cumulative threats anticipated to natural or cultural resources;
- 3) The use is consistent with management of existing Rhode Island Refuge Complex lands; existing Refuge regulations would not be compromised;

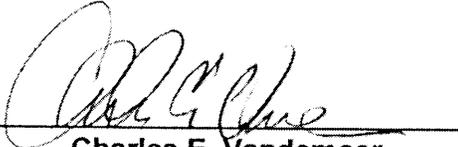
- 4) The newly acquired lands represent a meaningful unit within which to manage the activity;
- 5) There are no anticipated, irresolvable conflicts between or among priority public uses; and,
- 6) The land is acquired by the Service and the boundaries are posted.

The Refuge Manager will evaluate parcels of land for these conditions before they are acquired. Existing uses may be allowed if these conditions are found to exist; all refuge regulations would apply to the newly acquired lands.

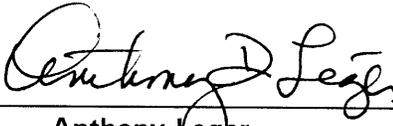
This pre-acquisition compatibility determination is in effect until the currently approved compatibility determinations for the Refuge Complex are revised. A compatibility determination will be revised when conditions under which the use was first allowed change significantly, or if there is significant new information regarding the effects of the use, or with revision of a CCP. There may also be changes warranted when the Visitor Services Plan is completed. However, at any time, the Refuge Manager retains the authority to modify or cancel any public uses in order to insure compatibility with refuge purposes or to insure the conditions above are met. Significant changes to these compatibility determinations will require another public review period.

### Justification

Existing priority, wildlife-dependant recreational uses should be allowed to continue on newly acquired tracts of land as they have been determined appropriate by the 1997 Refuge Improvement Act and, when compatible, are to be facilitated on refuges. These programs support the mission of the National Wildlife Refuge System by promoting an understanding and appreciation of natural and cultural resources and their management within a national system of refuges. Our programs will reach out to all segments of the public to expand support for the refuge system. Individual refuge programs will be consistent with, and fully support, the goals and objectives in refuge CCPs.

Signature – Refuge Manager:   
Charles E. Vandemoer

Date: 3/20/02

Concurrence – Regional Chief:   
Anthony Leger

Date: 5/7/2002

Mandatory 15-year Reevaluation

Date: 5/7/2017

Pre-Acquisition Compatibility Determination  
Rhode Island National Wildlife Refuge Complex  
(For use on lands approved for acquisition, but not yet acquired  
into the Rhode Island National Wildlife Refuge Complex)

### Uses

Wildlife observation and photography, environmental education and interpretation.

### Refuge names, establishing and acquisition authorities, and purposes

Each National Wildlife Refuge is established under specific legislation or administrative authority . Similarly, each refuge has one or more specific legal purposes for which it was established. The establishing legislation or authority and the purposes for each refuge in the Rhode Island National Wildlife Refuge Complex (Refuge Complex) are given below.

#### Block Island National Wildlife Refuge

Date Established: 2 November 1973

Establishing and Acquisition Authorities: Block Island National Wildlife Refuge (Block Island Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or other Purposes.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were for. . . “particular value in carrying out the national migratory bird management program.”

#### Ninigret National Wildlife Refuge

Date Established: 12 August 1970

Establishing and Acquisition Authorities: Ninigret National Wildlife Refuge (Ninigret Refuge) was established under 16 U.S. Code 667b, Public Law 80 - 537, an Act Authorizing the Transfer of Certain Real Property for Wildlife, or Other Purposes. Additions to the refuge were acquired under the Migratory Bird Conservation Act, 16 U.S.C. 715d.

Purpose(s) for which Refuge was established: Lands acquired under 16 U.S. code 667b, Public Law 80-537 were established for their. . . “particular value in carrying out the national Migratory Bird Management Program.” Additional lands acquired under the Migratory Bird Conservation Act (16 U.S.C. ss 715d) were. . . “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

#### John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove

Date Established: 5 November 1988 (originally established as Pettaquamscutt Cove National Wildlife Refuge)

Establishing and Acquisition Authorities: John H. Chafee National Wildlife Refuge (Chafee Refuge) was established under an Amendment to the Emergency Wetlands Resources Act (102 Stat. 3177) and the National Wildlife Refuge Administrative Act of 1966, as amended (16 USC 668dd - 668ee; 80 STAT 927).

Purpose(s) for which Refuge was established: The purposes for which the refuge was established and managed for are: “(1) to protect and enhance the populations of black ducks and other waterfowl, geese, shorebirds, terns, wading birds, and other wildlife using the refuge; (2) to provide for the conservation and management of fish and wildlife within the refuge; (3) to fulfill the international treaty obligations of the United States respecting fish and wildlife; and (4) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation” (102 Stat. 3177).

#### Sachuest Point National Wildlife Refuge

Date Established: 3 November 1970

Establishing and Acquisition Authorities: Sachuest Point National Wildlife Refuge (Sachuest Point Refuge) was established under the Refuge Recreation Act of 1962 and the Fish and Wildlife Act of 1956.

Purpose(s) for which Refuge was established: Sachuest Point Refuge was established “...for the development, management, advancement, conservation, and protection of fish and wildlife resources” and for “(1) incidental fish and wildlife-oriented recreational development; (2) protection of natural resources, and (3) conservation of endangered or threatened species” (Refuge Recreation Act of 1962).

### Trustom Pond National Wildlife Refuge

Date Established: 15 August 1974

Establishing and Acquisition Authorities: The Trustom Pond National Wildlife Refuge (Trustom Pond Refuge) was established under the authority of the Migratory Bird Conservation Act, 16 USC 715-715R and by the Refuge Recreation Act, 16 USC c - 1.

Purpose(s) for which Refuge was established: For lands acquired under the Migratory Bird Conservation Act, as amended, the purpose of the acquisition is “. . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” 16 U.S.C. § 715d (Migratory Bird Conservation Act) and for “. . . (1) incidental fish and wildlife-oriented recreational development; (2) the protection of natural resources; and (3) the conservation of endangered or threatened species. . .” as authorized by the Refuge Recreation Act, 16 USC. c - 1.

### National Wildlife Refuge System Mission

The Mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

### Description of Use

*What is the use?*

This pre-acquisition compatibility determination serves as our “statement of intent” to allow wildlife observation and photography, environmental education and interpretation activities to continue, where they are pre-existing and owner-authorized, on lands approved for Service acquisition, but not yet acquired. The specific parcels covered by this compatibility determination have been identified in the final Land Protection Plan (LPP) for the Rhode Island National Wildlife Refuge Complex, April 2002.

Within the refuge acquisition boundary, most of the parcels are privately owned and currently unimproved, and we are aware of only a few existing public use opportunities. As we pursue acquisition of individual parcels we will be able to verify whether others exist. We are aware of the following wildlife-dependent public uses on refuge parcels identified for acquisition:

- Block Island Refuge: environmental education, wildlife observation, photography
- Ninigret Refuge: wildlife observation, photography
- Sachuest Point Refuge: wildlife observation, photography, environmental education
- Trustom Pond Refuge: wildlife observation, photography.

*Are the uses priority public uses?*

Yes, wildlife observation and photography, and environmental education and interpretation were identified as priority, wildlife-dependent public uses by the National Wildlife Refuge Improvement Act of 1997 (Refuge Improvement Act, P.L. 105-57).

*Where would the use be conducted?*

The LPP identifies new acquisition boundaries for all five refuges in the Refuge Complex. The LPP also delineates the specific parcels, using town tax records, approved for acquisition by the Service for each refuge. Parcels will be acquired from willing sellers only, as funding allows.

*When would the use be conducted?*

All opportunities would be implemented consistent with the compatibility determinations already in place for existing refuge lands. Compatibility determinations for these priority public uses were recently updated and approved in conjunction with the preparation of Comprehensive Conservation Plans (CCPs) for each of the five refuges in the Refuge Complex. In general, refuges are open from sunrise to sunset for these activities; the only exceptions would be pre-approved environmental education and interpretive programs. Environmental education and interpretation, and wildlife observation and photography activities would occur year-round.

*How would the use be conducted?*

All opportunities would be implemented consistent with the compatibility determinations already in place for existing refuge lands, refuge regulations, and applicable State and local laws.

*Why is the use being proposed?*

These priority public uses may already be occurring on privately owned lands, with the owners permission. These uses are also identified as priority uses by the National Wildlife Refuge System Improvement Act of 1997.

### Availability of Resources

No additional Refuge resources would be devoted to these uses; that is, no additional infrastructure would be developed to accommodate these new areas until compatibility determinations are revised in response to new information or until we revise individual step-down management plans. Any proposed expenditures for improving public use opportunities in these areas would be identified as projects in a Visitor Services Plan. Acquisition and posting of these parcels will occur regardless of their potential for wildlife-dependent public use.

### Anticipated Impacts of Proposed Actions

We expect only minimal impacts from continuing to allow these priority public uses, similar to those impacts described in the compatibility determinations for existing refuge lands.

### Public Review and Comment

As part of the CCP/EA process for the Rhode Island Refuge Complex, this compatibility determination has undergone extensive public review, including a 51 day public comment period, following release of the draft CCP/EA in January 2001. We did not receive any comments specifically pertaining to this pre-acquisition compatibility determination, only general comments about the need to continue to provide priority public uses to the extent possible on existing refuge lands.

### Determination

The uses are compatible X.

The uses are not compatible \_\_\_.

### Stipulations Necessary to Ensure Compatibility

The following conditions must all be met before allowing existing, priority, wildlife-dependent public use to continue on an interim basis on newly acquired lands:

- 1) There are no indirect, direct, or cumulative threats anticipated to human health or safety;
- 2) There are no indirect, direct, or cumulative threats anticipated to natural or cultural resources;

- 3) The use is consistent with management of existing Rhode Island Refuge Complex lands; existing Refuge regulations would not be compromised;
- 4) The newly acquired lands represent a meaningful unit within which to manage the activity;
- 5) There are no anticipated, irresolvable conflicts between or among priority public uses; and,
- 6) The land is acquired by the Service and the boundaries are posted.

The Refuge Manager will evaluate parcels of land for these conditions before they are acquired. Existing uses may be allowed if these conditions are found to exist; all refuge regulations would apply to the newly acquired lands.

This pre-acquisition compatibility determination is in effect until the currently approved compatibility determinations for the Refuge Complex are revised. A compatibility determination will be revised when conditions under which the use was first allowed change significantly, or if there is significant new information regarding the effects of the use, or with revision of a CCP. There may also be changes warranted when the Visitor Services Plan is completed. However, at any time, the Refuge Manager retains the authority to modify or cancel any public uses in order to insure compatibility with refuge purposes or to insure the conditions above are met. Significant changes to these compatibility determinations will require another public review period.

### Justification

Existing priority, wildlife-dependant recreational uses should be allowed to continue on newly acquired tracts of land as they have been determined appropriate by the 1997 Refuge Improvement Act and, when compatible, are to be facilitated on refuges. These programs support the mission of the National Wildlife Refuge System by promoting an understanding and appreciation of natural and cultural resources and their management within a national system of refuges. Our programs will reach out to all segments of the public to expand support for the refuge system. Individual refuge programs will be consistent with, and fully support, the goals and objectives in refuge CCPs.

Signature – Refuge Manager:   
Charles E. Vandemoer

Date: 3/20/02

Concurrence – Regional Chief:   
Anthony Leger

Date: 5/7/2002

Mandatory 15-year Reevaluation

Date: 5/7/2017

## Appendix E

# Land Protection Plan

## Final Land Protection Plan

### Rhode Island National Wildlife Refuge Complex

#### I. Introduction

This final Land Protection Plan (LPP) specifically identifies land whose high natural resource values merit our consideration for inclusion within the Rhode Island National Wildlife Refuge Complex, as part of the National Wildlife Refuge System administered by the U.S. Fish and Wildlife Service (Service, we, our). As we acquire those lands, we would manage them for their wildlife resources, emphasizing the protection of Federal trust resources, such as endangered and threatened species and migratory birds, and for their nationally significant natural resources, such as wetlands. The objectives of this final LPP are

- To inform the public about the resource protection needs, specific location, size, and priority of the land we proposed to acquire in “Alternative B: The Service’s Proposed Action” of our draft Comprehensive Conservation Plan and Environmental Assessment (draft CCP/EA).<sup>1</sup>
- To inform landowners whose parcels lie within our proposed new acquisition boundaries of the Rhode Island National Wildlife Refuge Complex about our policies, priorities, options, and methods for protecting land.
- To inform landowners about our long-standing policy of acquiring land only from willing sellers. [No action will occur on any land if its owner is not interested in selling it to us.]

The maps in appendix A show the land we own now, the boundaries of our proposed new acquisition, and the parcels within this proposed boundary. Tables that correspond to the maps identify each parcel, its tax map number, its acreage, whether it is publicly or privately owned, and our priority and recommended option for acquiring it.

---

<sup>1</sup>USFWS Region 5 Rhode Island National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (Hadley, Massachusetts: December 2000)

#### II. Project Description

This final LPP describes in detail our strategies for protecting land within the new acquisition boundaries at the five national wildlife refuges in the Refuge Complex.

- Block Island National Wildlife Refuge
- John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove
- Ninigret National Wildlife Refuge
- Sachuest Point National Wildlife Refuge
- Trustom Pond National Wildlife Refuge

##### Block Island National Wildlife Refuge

Block Island Refuge is located in the Town of New Shoreham on Block Island, about 12 miles off the mainland. A transfer of 28.7 acres from the U.S. Coast Guard established the refuge in 1973. Since then, we have added other lands under the authority of the Fish and Wildlife Act of 1956. The refuge now holds 84.6 acres in fee title and 17.6 acres in conservation easement. Excluding lands covered by this LPP, our approved acquisition boundary contains another 61 acres that are still privately owned.

Block Island Refuge is unique in the richness of its biological resources. The Nature Conservancy considers Block Island, including the refuge, an internationally significant biodiversity reserve due to its endemic rare plant and animal species and significant concentrations of migratory birds. Our Regional Office also has identified the island as one of the most important migratory bird habitats on the East Coast, as it provides an essential link with Monomoy Island, Nomans Land Island, and Long Island.

Annual bird surveys on The Nature Conservancy’s land adjacent to the refuge have documented more than 250 species of waterfowl, raptors, shorebirds, and Neotropical landbirds during migration, including all of the focus species in the Partners In Flight Bird Conservation Plan for Area 9, and 11 priority species of the North American Waterfowl Conservation Management Plan. The federally listed endangered American burying beetle has been documented on the

refuge, and the federally listed threatened piping plover has nested on a beach contiguous with the refuge.

Maps BI 1–4 identify the specific parcels that compose a 95-acre expansion of Block Island Refuge. This represents a refinement of what we propose in “Alternative B: The Service’s Proposed Action” of our draft CCP/EA. These 95 acres would dramatically increase our contribution to an existing, and effective, land conservation partnership on the island (see appendix A). As we focus on Federal trust resources, those acres would increase long-term protection for

- Piping plover breeding and foraging habitat,
- American burying beetle foraging and potential breeding habitat,
- Neotropical migratory landbird and waterfowl foraging and migration habitat,
- Bald eagle roosting and foraging habitat,
- Shorebird and wading bird breeding and foraging habitat, including a green heron rookery.

As we focus on other nationally significant natural resources, we also would protect in perpetuity coastal freshwater pond, saltmarsh wetland, and beach strand habitats.

### **John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove**

The Chafee Refuge lies in the Towns of South Kingstown and Narragansett. Most of its parcels border the Narrow River; others border Point Judith Pond; almost all are surrounded by private land. The North American Waterfowl Joint Venture Plan for Black Ducks identifies Pettaquamscutt Cove as a black duck wintering area that warrants long-term protection. The refuge now owns 329 acres in fee title. Excluding lands covered by this LPP, our current, approved acquisition boundary contains another 135 acres that are still privately owned.

Originally established in 1988 as Pettaquamscutt Cove NWR, Congress renamed the refuge in 1999 to honor the late Senator John H. Chafee for his contribution to protecting nationally significant natural resources. Senator Chafee proposed the legislation that created the refuge by designating 600 acres of Pettaquamscutt Cove and its associated uplands for the protection of black ducks, shorebirds, and other waterfowl. In 1996, the refuge acquisition boundary was

legislatively revised to include 128 acres, locally known as the Foddering Farm Acres, on Point Judith Pond, which we purchased in 1997.

Maps CH 1–4 identify the specific parcels that compose a 878-acre expansion of Chafee Refuge. This represents a refinement of what we propose in “Alternative B: The Service’s Proposed Action” of our draft CCP/EA. These 878 acres would provide more long-term protection to saltmarsh and forested wetlands habitat used by a wide variety of resident and migratory waterfowl, such as black ducks, shorebirds, and wading birds, as well as a black-crowned night-heron rookery.

As we focus on nationally significant natural resources, we also would protect in perpetuity crucial lands in the Narrow River and Point Judith Pond watershed that provide important Neotropical landbird migration and breeding habitat, such as forested wetlands, vernal pools, and adjacent uplands. Most of the Partners In Flight Area 9 focal species have been documented in the area, and also would benefit from our protecting more land.

### **Ninigret National Wildlife Refuge**

Ninigret Refuge, established in 1970, is located in the Town of Charlestown, Rhode Island, 30 miles south of Providence. Transfers of land from the U.S. Navy to the Service created and expanded the refuge: 27.5 acres of Ninigret Pond barrier beach in 1970; 316.4 acres of the Naval Landing Field in 1979; and 60 acres in 1982. Excluding lands covered by this LPP, we currently own 701 acres in fee title, which is all the land within the current, approved refuge acquisition boundary.

Ninigret Refuge comprises two different parcels: the mainland parcel and the barrier beach parcel. The mainland parcel comprises 674 acres: a 182-acre contiguous mosaic of forest, shrub lands and wetlands that includes 3 miles of Ninigret Pond shoreline; 200 acres, the former Naval facility, where we are restoring native coastal sandplain grasslands and shrub lands; and 292 acres we recently acquired in two parcels of upland mature deciduous forest north of U.S. Route 1. These provide breeding and migration habitat for forest interior dwelling birds, and also protect the Ninigret Pond watershed.

The 27.5-acre barrier beach parcel lies between Ninigret Pond and Block Island Sound. In cooperation

with the State of Rhode Island Ninigret Conservation Area, we manage the parcel to provide nesting and foraging habitat for piping plovers.

Maps NI 1–4 identify the specific parcels that compose a 390-acre expansion of Ninigret Refuge. This represents a refinement of what we propose in “Alternative B: The Service’s Proposed Action” of our draft CCP/EA. These 390 acres would provide more long-term protection of saltmarsh habitat, which is used by a wide variety of resident and migratory waterfowl and shorebirds. We also would protect in perpetuity crucial lands in the Ninigret Pond watershed, such as forested uplands, vernal pools, and wetlands that provide important Neotropical landbird migration and breeding habitat. Most of the Partners In Flight Area 9 focal species have been documented in the area, and would benefit from our protecting more land.

### **Sachuest Point National Wildlife Refuge**

Sachuest Point Refuge is located in the Town of Middletown, Rhode Island, about 23 miles southeast of Providence and 5 miles east of Newport. A 71-acre donation from The Audubon Society of Rhode Island established the refuge in 1970. The U.S. Navy transferred 50 acres in 1976 and 107 acres in 1979. An exchange of land between the Service and the Town of Middletown brought the refuge total to 242 acres. Excluding lands covered by this LPP, the Service currently owns in fee title all the land within the current, approved refuge acquisition boundary.

Sachuest Point is an important stopover in the area for landbirds and shorebirds during migration. Its physical presence as an undeveloped peninsula jutting into the Sakonnet River and Rhode Island Sound and its abundance of fruit-bearing shrubs readily attract migratory birds, who stop to forage, rest, or obtain shelter from storms.

Maps SP 1–4 identify the specific parcels that compose a 35-acre expansion of Sachuest Point Refuge. This represents a refinement of what we propose in “Alternative B: The Service’s Proposed Action” of our draft CCP/EA. Grassland and shrub land communities are disappearing rapidly from Aquidneck Island, particularly near the refuge. These 35 acres would provide additional long-term management of native coastal maritime grasslands and shrub lands important to migratory landbirds, who depend on them for

breeding, foraging, and migration habitat. Most of the Partners In Flight Area 9 focal species associated with other habitat types have been documented in the area as well, and would benefit from our protecting more land. We also would protect in perpetuity nationally significant natural resources, such as coastal freshwater, saltmarsh wetland, and beach strand habitats. These support a wide variety of resident and migratory waterfowl, shorebirds, and wading birds.

### **Trustom Pond National Wildlife Refuge**

Trustom Pond Refuge is located in the Town of South Kingstown. A 365-acre donation by Mrs. Ann Kenyon Morse established the refuge in 1974. In 1980, our approved Environmental Assessment expanded the acquisition boundary to 1,000 acres. In 1982, The Audubon Society of Rhode Island donated the 151-acre Moonstone Beach Bird Sanctuary. The refuge now includes 651 acres in fee title, and 136 acres of conservation easement. Excluding lands covered by this LPP, our current, approved acquisition boundary includes another 253 acres that are still privately owned.

The variety of both uplands and wetlands on Trustom Pond Refuge supports more than 280 bird species, 41 mammal species, 10 fish species, and 20 reptile and amphibian species. Wildlife management on the refuge has focused primarily on migratory birds, especially waterfowl and shorebirds. Another focus is restoring native coastal sandplain grasslands and shrub lands to benefit Partners In Flight Area 9 focal species that nest in those habitats. The centerpiece of the refuge is a 160-acre coastal salt pond, which provides important migrating and wintering habitat for at least 31 species of waterfowl, including black duck, and 20 species of shorebirds. Between the pond and Block Island Sound lies Moonstone Beach, which we manage to protect nesting piping plovers and the State-listed threatened least tern.

Maps TP 1–4 identify the specific parcels that compose a 1,283-acre expansion of Trustom Pond Refuge. This represents a refinement of what we propose in “Alternative B: The Service’s Proposed Action” of our draft CCP/EA. These 1,283 acres would provide additional long-term management of high quality coastal sandplain grasslands and shrub lands important to certain migratory landbirds for breeding, foraging, and migration. We also would protect in perpetuity lands crucial to the Trustom Salt

Pond watershed, such as forested uplands, vernal pools, and wetlands, which also provide important Neotropical bird migration and breeding habitat. Most of the Partners In Flight Area 9 focal species have been documented in the area as well; they also would benefit from our protecting additional land.

### III. Status of Resources to be Protected

The southern coastline of Rhode Island, including the refuges and their adjacent lands is, perhaps, the most imperiled by the threat of development in the mid-Atlantic United States. Recent assessments by the local planning department indicate “build-out” will occur in some portions of the area as soon as 20 years, with “natural areas” at a premium much sooner than that. The housing market has maintained a steady increase at 16 percent. In response to that high demand, real estate agents and developers are selling houses that are not yet built. The economy of Rhode Island remains strong, despite a nation-wide slowdown.

Poor water quality already threatens refuge habitats. Trustom Pond, the only undeveloped salt pond in Rhode Island, now has water quality problems from storm water runoff, inefficient septic systems in nearby residential areas, chemical applications on lawns and, to a lesser extent, from agricultural practices. These same issues adversely affect the other refuges, as well. This is evidenced by the State’s having closed shell-fishing on the Narrow River, including Pettaquamscutt Cove, in Ninigret Pond, and in Great Salt Pond on Block Island, due to poor water quality, in particular, high levels of fecal coliform bacteria.

As lands near the refuges are developed, parcels with the highest wildlife resource values, such as shorelines and coastal beaches, frequently are targeted first for development. Even when they are not developed, these areas tend to fall under tremendous pressure from human recreational activities, which reduces habitat quality for many species. The continuing dramatic loss of farm land to development has resulted in a permanent loss of grassland habitat. That loss has caused the suite of species associated with this habitat to undergo one of the most widespread and persistent population declines of any bird group. Similarly, development is significantly impacting the availability of large contiguous mature forest habitat vital to many species of forest interior dwelling birds. Areas that

remain forested tend to be smaller blocks of habitat that are susceptible to edge effects, including higher predation pressures and nest parasitism.

### IV. Proposed Action and Objectives

When we developed our draft CCP/EA, we identified land protection focus areas, typically along watershed boundaries, which contain high Federal trust resource values in and around the refuges. In certain high priority areas within those focus areas, we recommended Service land acquisition. As we developed this final LPP, we looked at those focus areas in greater detail, further evaluated Federal trust resource values, and established new refuge acquisition boundaries that were more discrete and discernible than watershed lines, and were more susceptible to efficient administration and effective resource management.

We used town tax parcel maps as a basis for our acquisition mapping. Those tax maps contain several areas that are platted as small lots or subdivisions, complete with streets and rights-of-way, which do not actually exist on the ground. We are not interested in acquiring developed subdivisions; in fact, virtually all of the parcels we identified for Service acquisition are undeveloped. The parcels we identify in this final LPP for Service acquisition support the following land protection priorities of our draft CCP/EA.

- Protect known sites of threatened or endangered species and rare natural communities;
- Protect areas important to the ecological integrity and health of existing refuge lands; that is, assemble the land base needed to ensure that ecosystem processes and functions are intact (e.g., areas needed to protect the quality and quantity of water for wetlands);
- Protect areas that provide important habitat corridors among or between refuge lands and other conservation lands, or lands that assemble a sufficient contiguous area to support viable populations of priority species; and,
- Protect specific areas identified as important natural communities or important sites for priority species (e.g., critical stopover habitat for migrating birds, bald eagle roosting sites, or wading bird rookeries).

We propose to protect 2,681 acres by purchasing land in fee simple and by purchasing conservation easements (see “Protection Options” below). Table 1, below, breaks down that total by refuge, by option. See appendix A for the details on each parcel in each refuge. Each of the five final CCP’s (one for each refuge) will incorporate our approved final LPP as a management action in support of land protection goals and objectives.

Table 1. New refuge acreage by purchase option

Refuge <sup>1</sup>	Acres	Fee Simple	Easement
Block Island	95	51%	49%
Chafee	878	100%	0%
Ninigret	390	100%	0%
Sachuest Point	35	100%	0%
Trustom Pond	1,283	81%	19%
<hr/>			
Total	2,681		

<sup>1</sup>Percentages are approximate, and may change.

**V. Protection Options**

The following list identifies what protection options are available to us. We considered and evaluated each option before developing our proposed action, presented in detail in appendix A. Our policy in acquiring land is to acquire only the minimal interest necessary to meet each refuge’s goals and objectives, and to acquire land only from willing sellers in a manner that meets their needs. We believe our proposed action is a cost-effective way of providing the minimal level of protection needed for project objectives, given the information now available to us. As parcels become available in the future, however, changes in the protection option for a specific parcel may be warranted to ensure we are using the option that best fits the situation at that time.

**Option 1.—No Service Action; Management or Acquisition by Others**

Under Option 1, we would maintain present refuge acquisition boundaries; we would not expand the refuges or protect additional habitat. Our draft CCP/EA evaluates this option as “Alternative A: No Action (Current Management).” We did not recommend Alternative A because:

- It would not adequately protect Federal trust resources within and adjacent to the refuges;
- It was not supported by the majority of the public; and
- Most of the lands it identified as needing protection likely would have been developed.

**Option 2.—Non–Purchase Protection**

Under Option 2, we would work with other conservation organizations and agencies, such as The Nature Conservancy, Audubon Society of Rhode Island, Rhode Island Department of Environmental Management, and local land trusts, to support their land protection and management programs of mutual interest and benefit to the Service.

Although each of those groups affords land some level of protection, they often do not have the financial or administrative resources to buy all those lands, nor can they actively manage the parcels as needed to protect our priority species. Without our contribution to land protection, many lands identified would likely be developed for residential homes and support services. These groups, and the public, have stated that Service acquisition and management is vital to ensuring the long-term protection of coastal Rhode Island natural resources.

Our proposed action (appendix A) assumes these groups will continue to buy lands important for recreation or to protect open space. However, our proposal also includes Service acquisition of those lands with significant Federal trust resource value in coastal Rhode Island.

### Option 3.—Less-than-fee Acquisition

Under Option 3, we would protect and manage land by purchasing only a partial interest, typically in the form of a conservation easement. This option keeps the parcel in private ownership, while allowing us some control over land use. We would have to determine, on a case-by-case basis, and negotiate with each landowner the extent of the rights we would be interested in buying. Those may vary, depending on the configuration and location of the parcel, the current extent of development, the nature of wildlife activities in the immediate vicinity, the needs of the landowner, and other considerations.

In general, any less-than-fee acquisition would maintain the land in its current configuration with no further subdivision. Where we identify conservation easements in appendix A, we would be interested primarily in purchasing development rights. Easements are most appropriate for use where:

- Only minimal management of the resource is needed, such as in places where the management objective is to allow deciduous forests to mature and provide habitat for migratory and resident songbirds;
- Current land use regulations limit the potential for adverse management practices;
- The protection strategy calls for the creation and maintenance of a watershed protection area that can be accommodated with passive management; or
- Only a portion of the parcel contains lands of interest to the Service.

### Option 4.—Fee Acquisition

Under Option 4, we would acquire parcels in fee title from willing sellers, thereby purchasing all rights of ownership. This option provides us the utmost flexibility in managing priority lands, and ensuring the protection in perpetuity of nationally significant trust resources.

Generally, the lands we would buy require more than passive management (e.g., controlling invasive species, mowing or prescribed burning, planting, or managing the six priority public uses). We propose fee acquisition in appendix A only when adequate land

protection was not assured under other ownerships, active land management was required, or we predicted the landowner would be unwilling to sell a partial interest like a conservation easement.

We also would like to point out that it may become necessary in the future to convert a conservation easement to fee acquisition. For example, when an owner is interested in selling the remainder of interest in the land; when changes to zoning or land use regulation compromise resource values; or, when our management objectives change so that more active habitat or public use management is desirable. We will evaluate this need on a case-by-case basis.

## VI. Acquisition Methods

We may use four methods of acquiring either a full or a partial interest in the parcels identified for Service acquisition: (1) fee purchase (e.g., complete title, or a partial interest like a conservation easement), (2) donations, (3) exchanges, and (4) transfers. In rare circumstances, we also may use a fifth method, known as “friendly condemnation.”

The Service, like other Federal agencies, has the power of eminent domain. However, because of our long-standing policy to acquire land only from willing sellers, we may use friendly condemnations at the request of a willing seller. For example, when the Service and a willing seller cannot agree on property value, at the landowner’s request, we may use friendly condemnation to determine fair market value. Or, where we cannot determine the rightful owner of a property, we may use friendly condemnation to clear title. We expect to use friendly condemnations very infrequently.

### Fee Purchase

Our preferred method is to buy a full or partial interest in land from willing sellers in fee simple, as our funding permits. At this time, in fact, we expect to acquire all available parcels by using fee purchase. Fee simple ownership assures the permanent protection of resources, and allows the complete control necessary for management activities, such as restoring disturbed or eroded areas, managing habitat, protecting endangered or threatened species, and providing and managing public access.

A landowner also may choose to sell land to the Service in fee simple and retain the right to occupy an existing residence. This is referred to as a “life-use reservation.” As their name implies, life-use reservations apply to the seller’s lifetime, but they can also apply for a specific number of years. At the time we acquire the parcel, we would discount from the appraised value of the buildings and land the term of the reservation. The occupant would be responsible for the upkeep on the reserved premises. We would own the land, and make revenue-sharing payments to the local taxing authority.

Much of our funding to buy land comes from the Land and Water Conservation Fund, which is derived from certain user fees, proceeds from the disposal of surplus Federal property, the Federal motor boat fuels tax, and oil and gas lease revenues. About 90 percent of that fund now derives from Outer Continental Shelf oil and gas leases. The Federal Government receives 40 percent of that fund to acquire and develop nationally significant lands. Another source of funding to purchase land is the Migratory Bird Conservation Fund, which derives from Federal Duck Stamp revenue. We plan to use both funds to buy either full or partial interests in the land identified in appendix A.

### **Donation**

We generally encourage donations in fee title or conservation easement within the approved areas, assuming management concerns, such as contaminants, are not a major issue. We are not currently aware of any opportunities to accept donations of parcels within our proposed boundary, but would evaluate them on a case-by-case basis as they arise.

### **Exchange**

We have the authority to exchange land in Service ownership for other land that has greater habitat or wildlife value. Inherent in this concept is the requirement to get dollar-for-dollar value, with, occasionally, an equalization payment. Exchanges are attractive because they usually do not increase Federal land holdings or require purchase funds; however, they also may be very labor-intensive, and take a long time to complete. An opportunity to exchange 2 acres with the Town of Charlestown may arise, but we have not fully developed that proposal.

### **Transfer**

We also have accepted transfer of a great deal of land that the military has declared excess, including parcels at Ninigret Refuge and Sachuest Point Refuge. Transfers also may occur in the future, but we are not currently aware of any opportunities to acquire land by this method. The 4-acre U.S. Coast Guard parcel at the northern tip of Block Island is one example with future potential. Should the Coast Guard declare the parcel excess to their needs, we would attempt to acquire it, because it offers habitat valuable for seabirds, including nesting habitat for the federally listed threatened piping plover. As other transfer opportunities arise within our proposed boundary, we will evaluate them on a case-by-case basis.

## **VII. Coordination**

Throughout our draft CCP/EA planning process, we solicited and carefully considered public comments on Service land acquisition. We worked with the Rhode Island Department of Environmental Management, five municipalities, local land trusts, and national conservation organizations who are directly involved in land protection strategies in coastal Rhode Island. Their continuing work will preserve a great deal of quality habitat around our proposed expansion areas.

We distributed the draft CCP/EA for a 51-day public review and comment period. We obtained comments through letters, e-mail, public Open Houses, formal public hearings, and partner and agency meetings. We received very few comments opposed to more Service acquisition; most responses favored it. In fact, many responses favored more Service acquisition than this final LPP proposes.

We distributed the draft LPP to all affected landowners, our conservation partners, State of Rhode Island and local agency and town offices, and the Narragansett Indian Tribal Office, for a 30-day comment period. Appendix B provides a summary of the comments we received on the draft LPP. Virtually all respondents expressed support for the proposed action. Appendix C is a letter of support for our proposed action from the Connecticut River/Long Island Sound Ecosystem Team.

---

## VIII. Socioeconomic and Cultural Impacts

We do not predict any significant adverse socioeconomic or cultural impacts. We believe a net positive benefit to the communities in coastal Rhode Island will result. Towns will benefit from increased refuge revenue sharing payments, savings on the cost of community services, increased property values, increased watershed protection, maintenance of scenic values, and increased revenues to local businesses from refuge visitors. Our draft CCP/EA describes those benefits in detail.

Rhode Island voters consistently have voted to support additional land protection. During our public involvement for the draft CCP/EA, they were enthusiastic about Service land acquisition. Many people encouraged us to develop a larger proposal. The dramatic increase in development along the South Shore over the past decade has local residents concerned about the ability to maintain a natural landscape. Acquisition by the Service, while aimed at protecting trust resources, watersheds, and other natural resource values, would also maintain the natural features residents care about.

The only concern we heard expressed about Service land acquisition was the likelihood of its reducing public access. Although it is true that we would eliminate non-wildlife-dependent activities, we would continue to promote the six priority wildlife-dependent uses of the Refuge System, including hunting, fishing, wildlife observation and photography, and environmental education and interpretation, where they are compatible with the management purposes of each refuge.

Refuge lands would increase protection for cultural resources in the area. Service ownership would protect known cultural sites against vandalism, and would protect as yet unidentified or undeveloped cultural sites from disturbance or destruction. Our interpretive and environmental education programs will continue to promote public understanding and appreciation of the area's rich cultural resources.

## Appendix A. Parcel Maps and Tables

The maps in this appendix show the land we own now, the boundaries of our proposed new acquisition, and the parcels we plan to acquire. Tables that correspond to those maps identify each parcel, its tax map number, its acreage, whether it is publicly or privately owned, and our priority and recommended option for acquiring it.

We have grouped the parcels onto Group A, B, and C maps of each refuge solely to enlarge their display. ***Those groupings do not connote priority rankings.*** We plan to acquire either full or partial interest in all the parcels by fee purchase from willing sellers. Expanded definitions of each table column head follow.

**Refuge**

lists all five Rhode Island refuges

**Group**

our grouping of individual parcels on refuge maps to enlarge their display. Each refuge has a Group A, Group B, and Group C map. *Groupings do not connote priority rankings.*

**Service Parcel ID**

our numerical identifier for each parcel on each refuge. Service ID numbers may not be sequential, as some tracts were deleted during revisions between draft and final LPPs causing interruptions in the numbering sequence.

**Tax Parcel ID**

taxing authority tax parcel identification number.

**Ownership**

whether the parcel is privately or publicly owned. "Private" includes individuals, corporations, etc. "Public" includes Federal, State, or town ownership.

**Acres**

estimated for each parcel from our Geographic Information System (GIS) database. This estimate may not match exactly town tax records; some parcels lack detailed information.

**Priority 1**

highest protection need and value. It includes lands that have a very high biological and trust resource value; are at the highest risk of loss to development within 10 years; lie close to existing refuge lands and would consolidate and protect the integrity of our trust resources; have a crucial role in providing for connectivity among habitats and natural communities; and best safeguard watershed values.

**Priority 2**

very high protection need and value. It includes lands that have high biological and trust resource values; are at less immediate risk of loss to development than priority 1 lands, but could be lost within 10 years; are a vital link in the overall strategy for resource protection, but may not lie directly adjacent to refuge lands; provide important watershed protection values to other lands proposed for protection; or provide protection directly to existing refuge lands.

**Priority 3**

high protection need and value. It includes lands which have high biological and trust resource values; are at risk of potential loss to development, but not necessarily within 10 years; would contribute to watershed protection; consolidate ownership to provide for effective management; or provide protection to existing refuge lands.

**Protection Option**

whether we would acquire fee title or conservation easement (see discussion in "Protection Option"). As stated above, we have identified here what we believe, given the information now available, is the minimal level of Service interest needed for project objectives that is also cost-effective. However, as parcels become available in the future, changes may be warranted to ensure we are using the option that best fits the situation at that time.

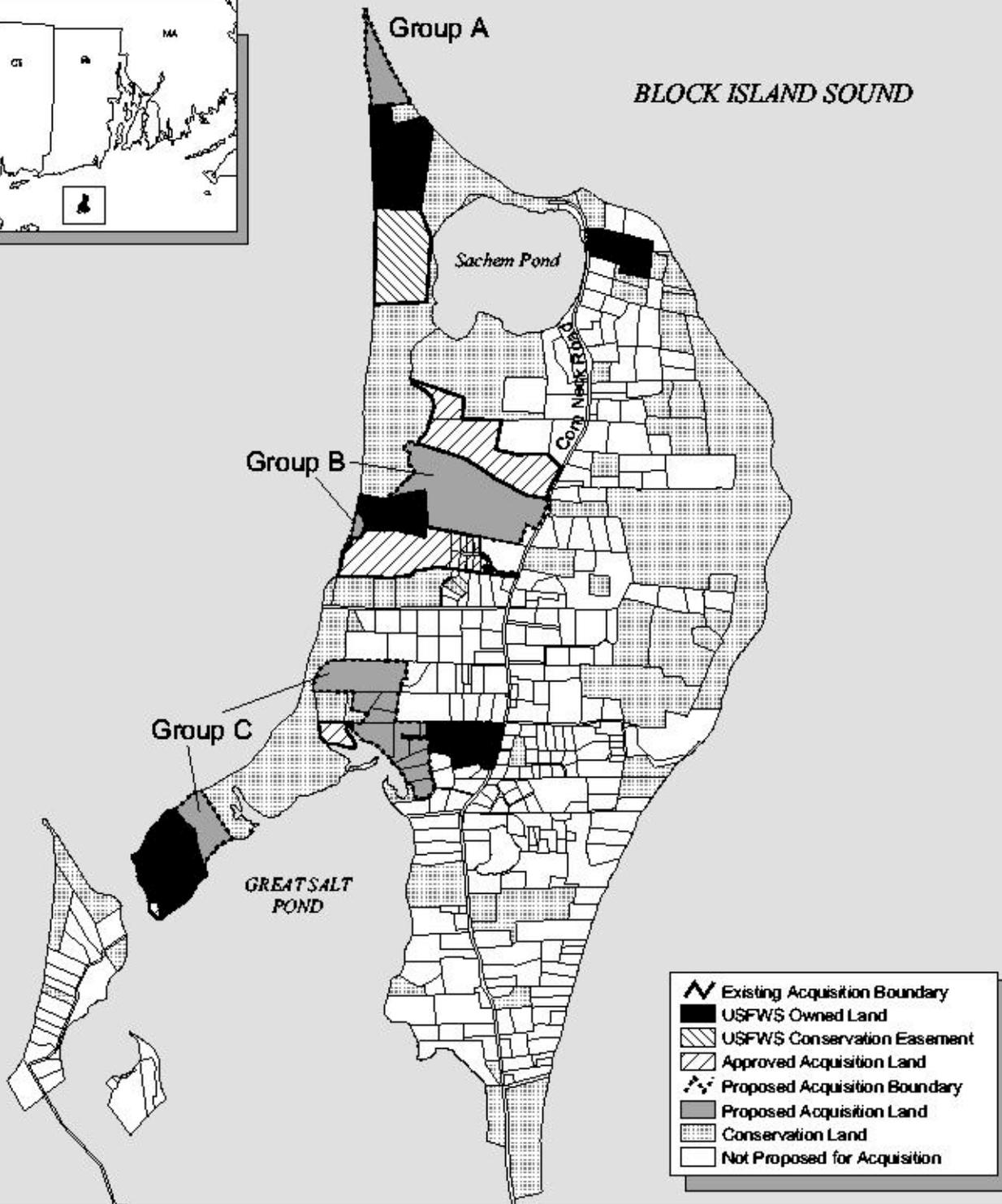
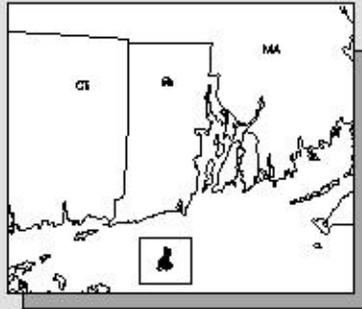
Maps and tables are presented in the following order:

1. Block Island National Wildlife Refuge
2. John H. Chafee National Wildlife Refuge at Pettaquamscutt Cove
3. Ninigret National Wildlife Refuge
4. Sachuest Point National Wildlife Refuge
5. Trustom Pond National Wildlife Refuge

# Block Island National Wildlife Refuge

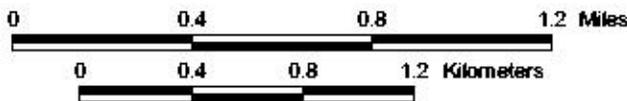
## *Land Protection Plan*

### Rhode Island NWR Complex

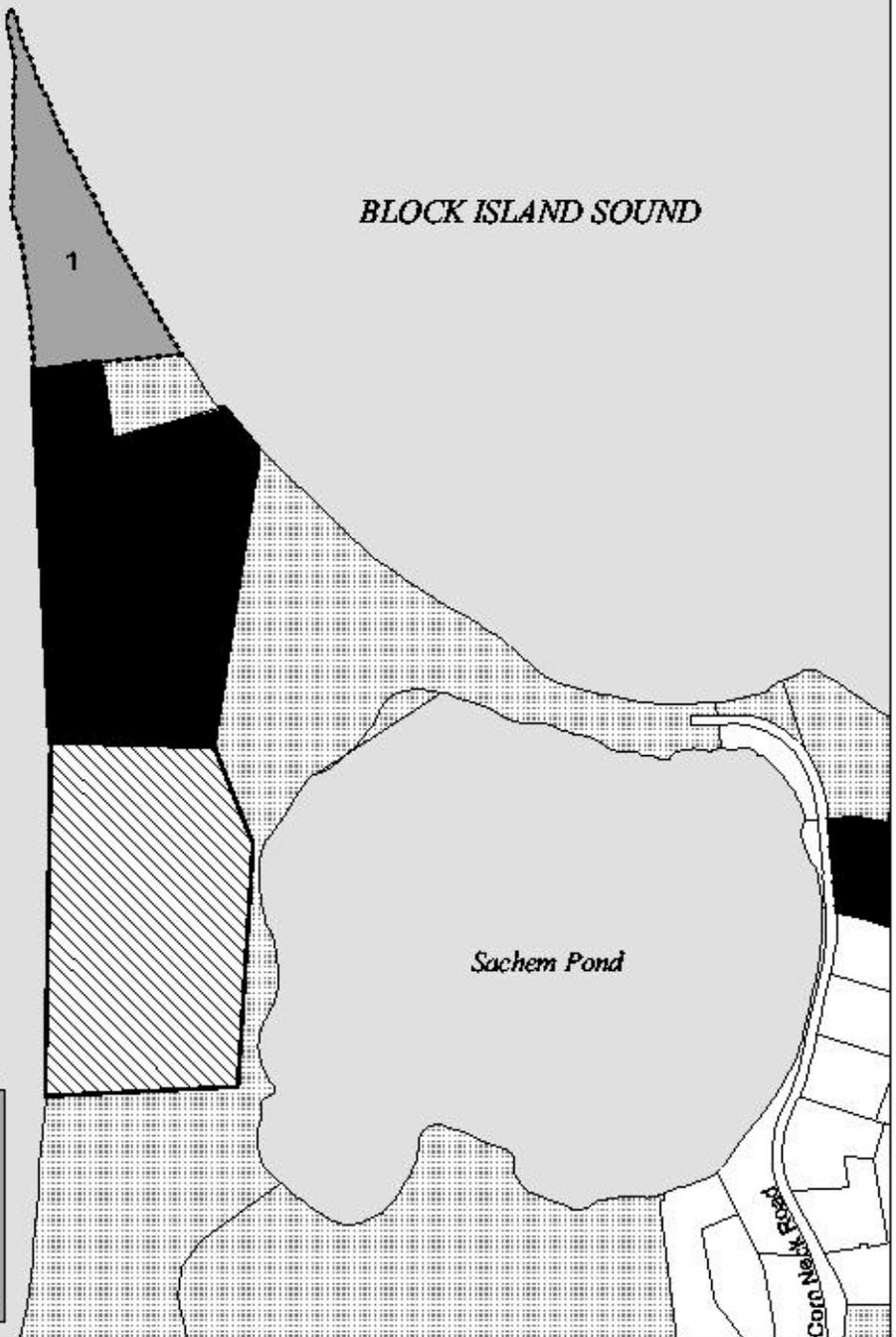
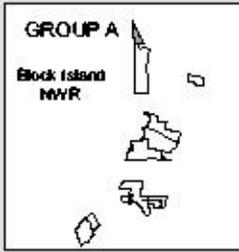


	Existing Acquisition Boundary
	USFWS Owned Land
	USFWS Conservation Easement
	Approved Acquisition Land
	Proposed Acquisition Boundary
	Proposed Acquisition Land
	Conservation Land
	Not Proposed for Acquisition

Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Service, Basick, Hurlay, Massachusetts using Town of New Shoreham (2000), and USFWS (2001) data.  
 Map prepared for Block Island NWR Complex Land Protection Plan, April 2002.  
 Not to be used for legal purposes.



# Block Island National Wildlife Refuge Land Protection Plan - *Ownerships for Group A* Rhode Island NWR Complex

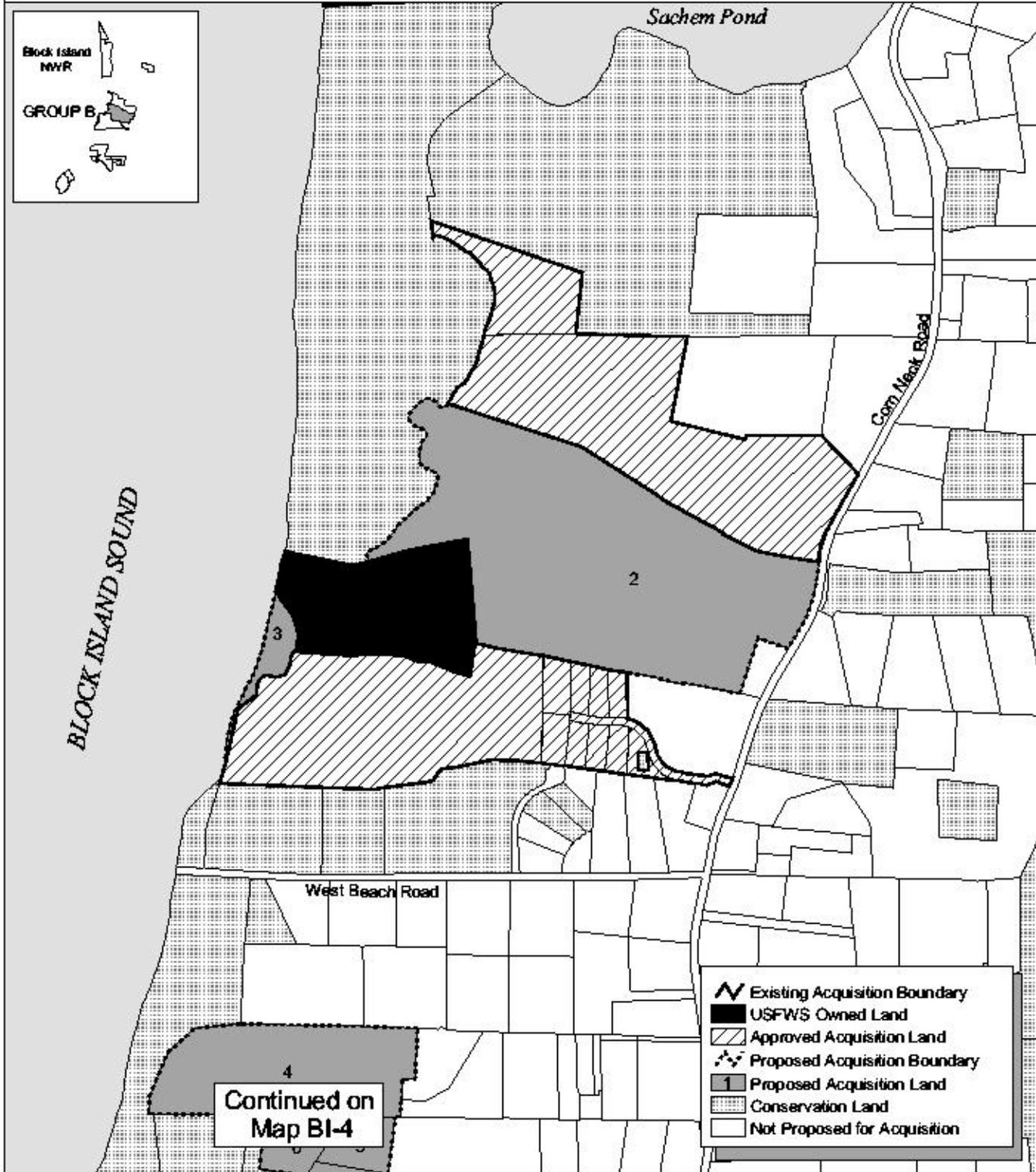


	Existing Acquisition Boundary
	USFWS Owned Land
	USFWS Conservation Easement
	Proposed Acquisition Boundary
	Proposed Acquisition Land
	Conservation Land
	Not Proposed for Acquisition

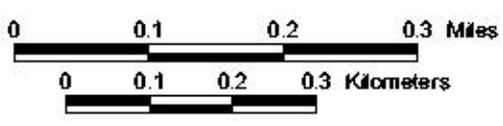
Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hedy, Massachusetts using Towns of New Shoreham (2000), and USFWS (2001) data.  
Map prepared for Block Island NWR Complex Land Protection Plan, April 2002.  
Not to be used for legal purposes.



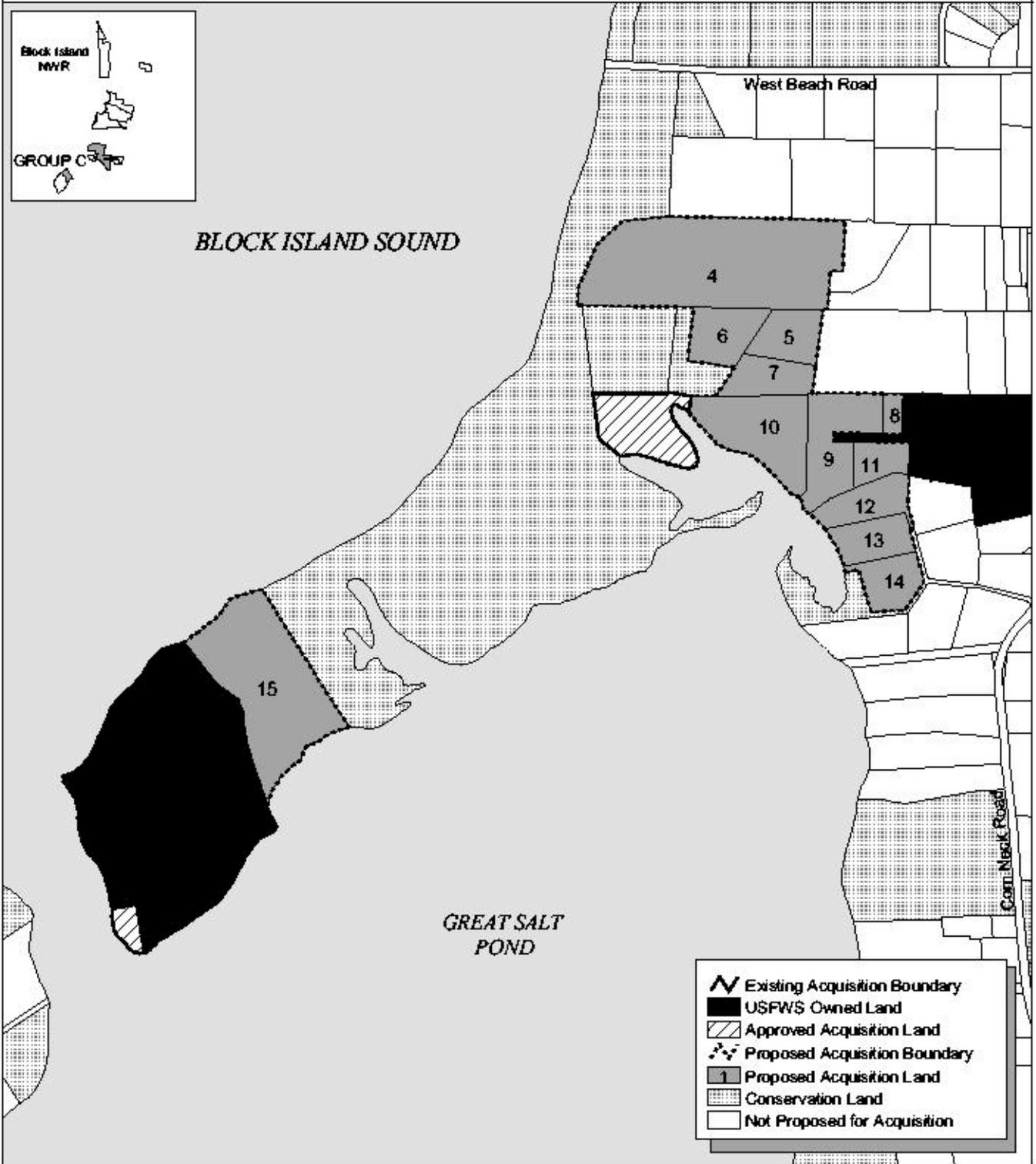
# Block Island National Wildlife Refuge Land Protection Plan - Ownerships for Group B Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hallowell, Maine, using Towns of New Shoreham (2000), and USFWS (2001) data.  
Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.  
Not to be used for legal purposes.



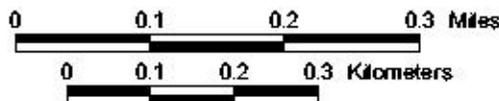
# Block Island National Wildlife Refuge Land Protection Plan - *Ownerships for Group C* Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Haddam, Massachusetts using Towns of New Shoreham (2000), and USFWS (2001) data.

Map prepared for Block Island NWR Complex Land Protection Plan, April 2002.

Not to be used for legal purposes.



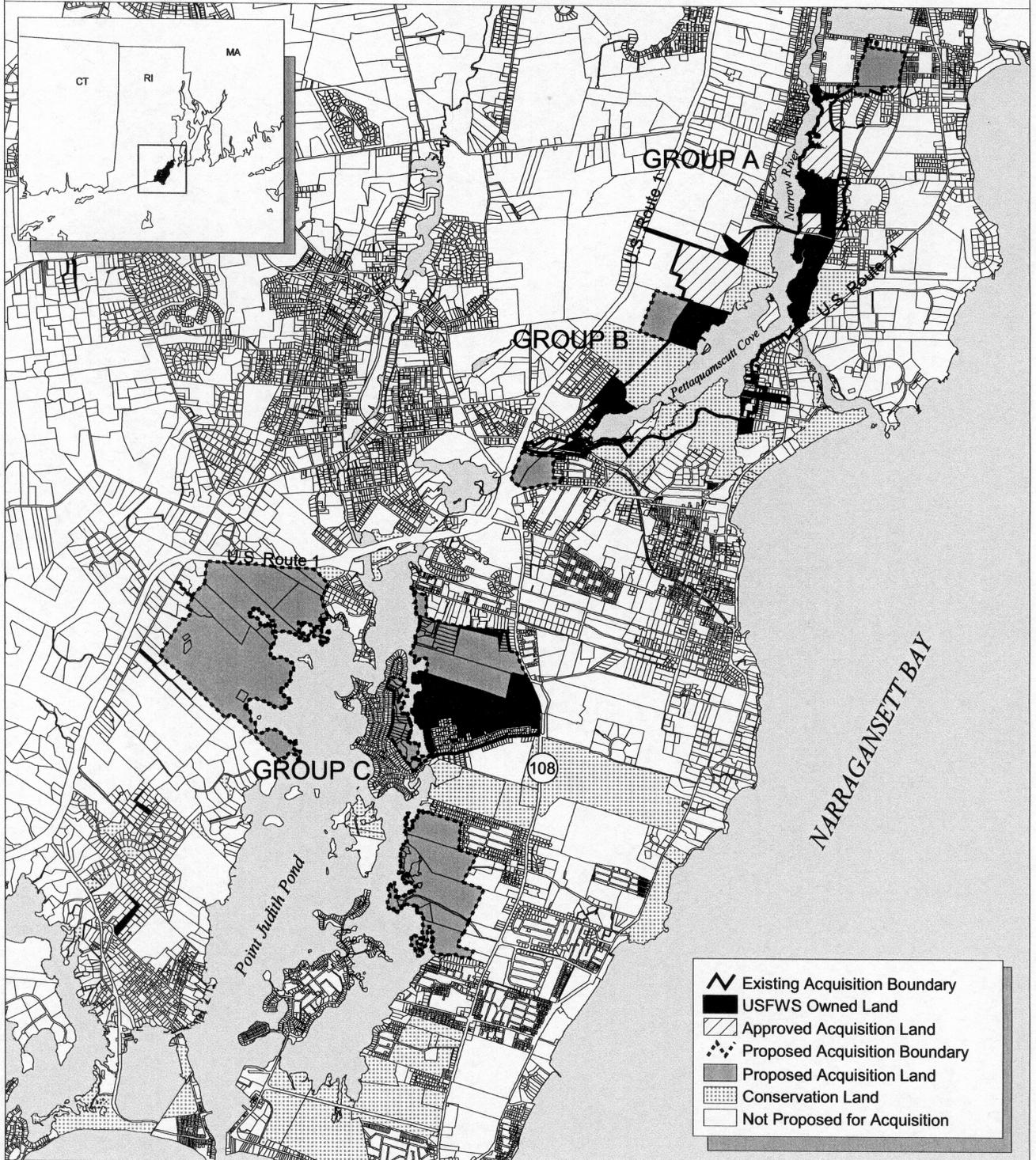
## Rhode Island National Wildlife Refuge Complex Land Protection Plan

## Block Island National Wildlife Refuge

REFUGE	GROUP	SERVICE	PARCEL ID	OWNERSHIP		ACRES*
PRIORITY	PROTECTION		OPTION			
Block Island	A	1	public	9.15	1	Fee Simple
Block Island	B	2	private	40.28	1	Conservation Easement
Block Island	B	3	public	1.57	1	Fee Simple
Block Island	C	4	private	13.06	1	Fee Simple
Block Island	C	5	private	1.92	1	Fee Simple
Block Island	C	6	private	2.15	1	Fee Simple
Block Island	C	7	private	1.86	1	Fee Simple
Block Island	C	8	private	0.48	1	Fee Simple
Block Island	C	9	private	3.61	1	Fee Simple
Block Island	C	10	private	4.45	1	Fee Simple
Block Island	C	11	private	1.25	1	Fee Simple
Block Island	C	12	private	1.96	1	Conservation Easement
Block Island	C	13	private	1.86	1	Conservation Easement
Block Island	C	14	private	1.79	1	Conservation Easement
Block Island	C	15	private	9.15	1	Fee Simple

\* Acres generated from US Fish & Wildlife Service Geographic Information System data, not from town tax records.

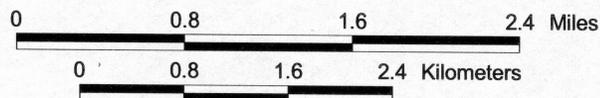
# John H. Chafee at Pettaquamscutt Cove National Wildlife Refuge *Land Protection Plan* Rhode Island NWR Complex



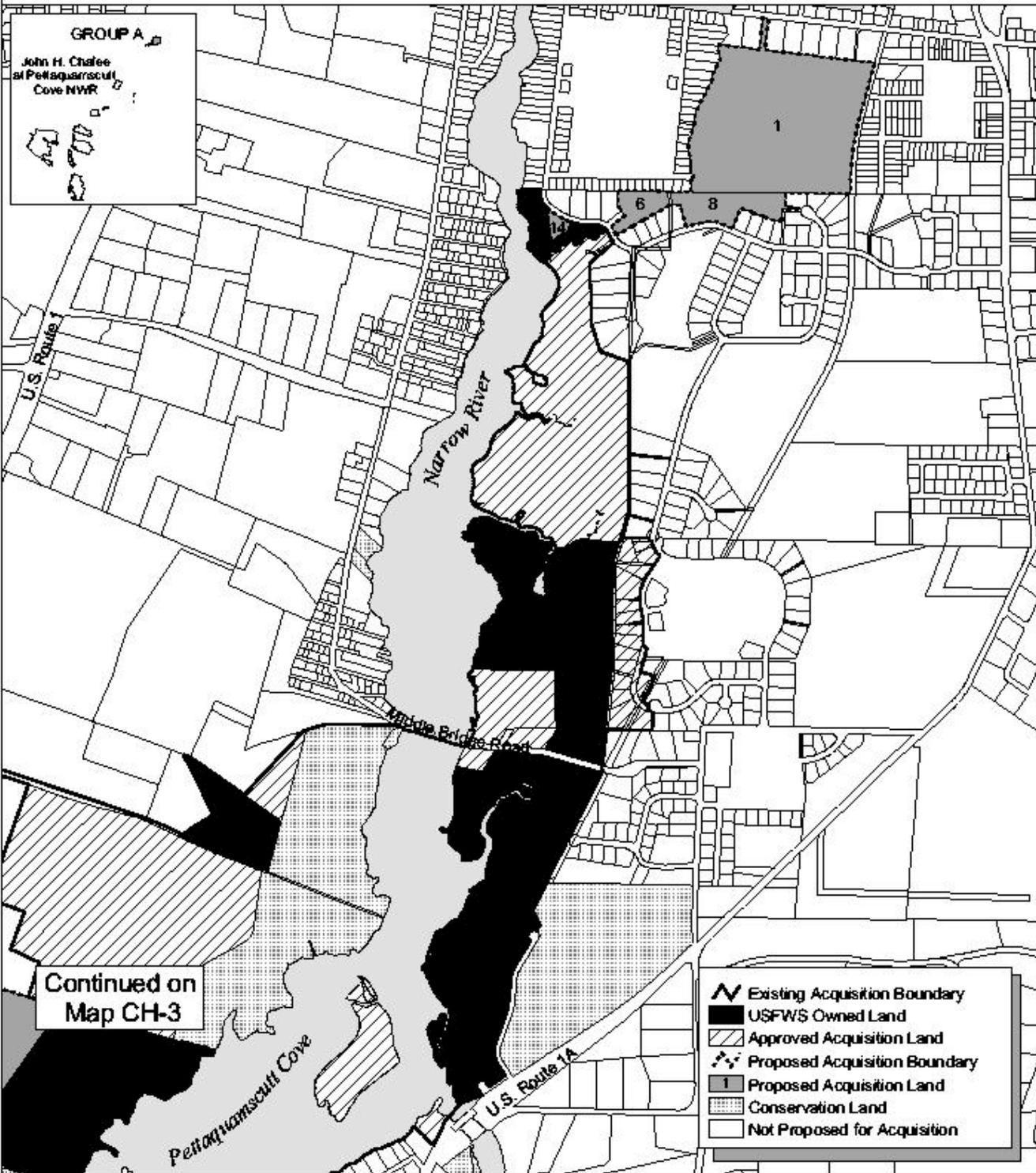
Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hadley, Massachusetts using Town of South Kingstown (2000) & Narragansett (1998), and USFWS (2001) data.

Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.

Not to be used for legal purposes.



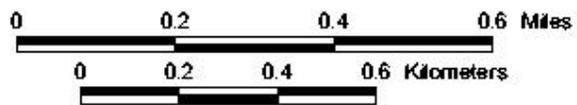
# John H. Chafee at Pettaquamscutt Cove National Wildlife Refuge Land Protection Plan - *Ownerships for Group A* Rhode Island NWR Complex



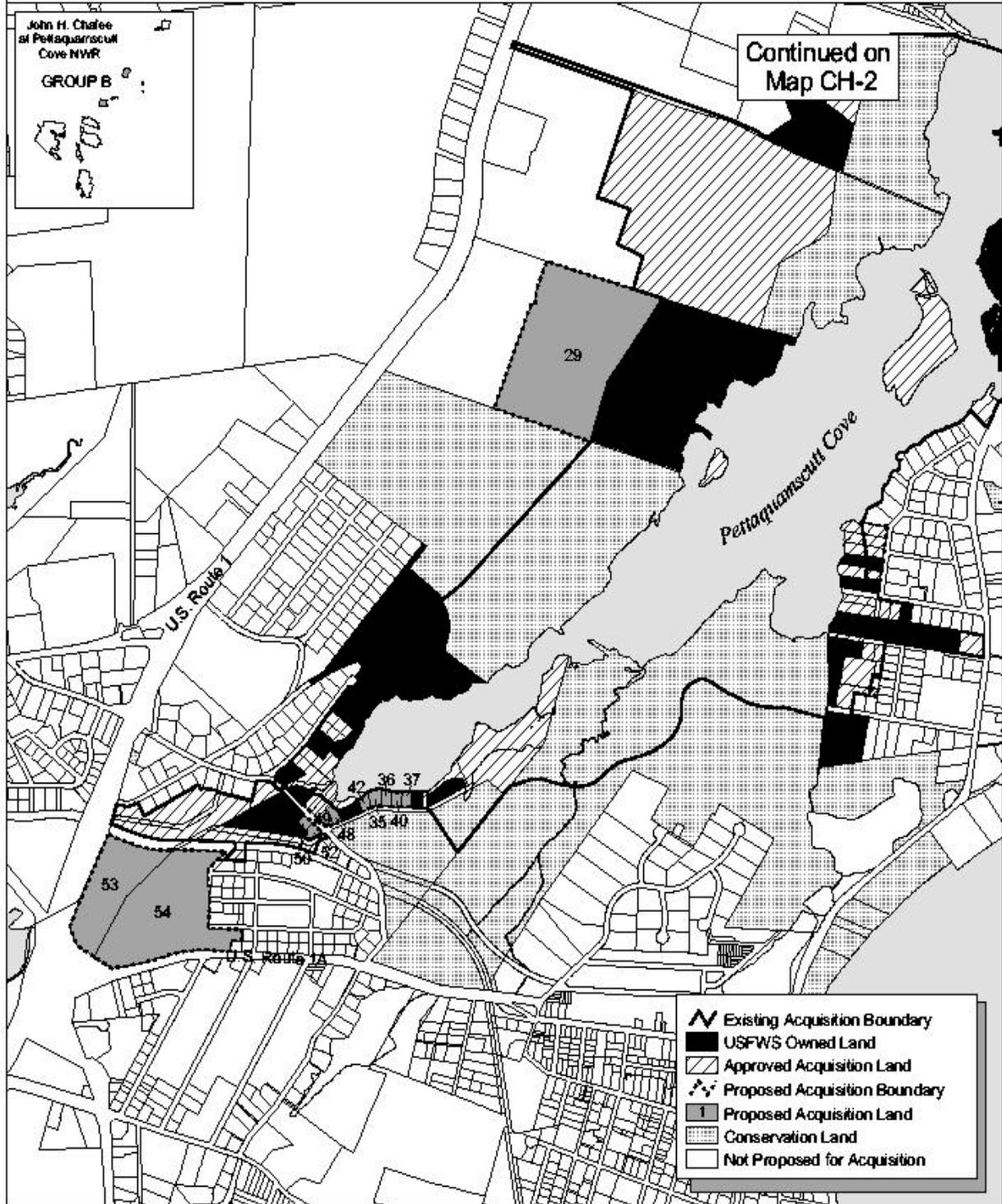
Continued on  
Map CH-3

	Existing Acquisition Boundary
	USFWS Owned Land
	Approved Acquisition Land
	Proposed Acquisition Boundary
	Proposed Acquisition Land
	Conservation Land
	Not Proposed for Acquisition

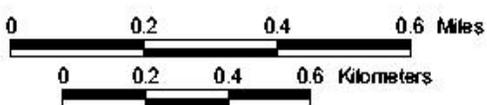
Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Service Branch, Hattley, Massachusetts using Service of South Kinglow (2000) & Haragan et al (1998), and USFWS (2001) data.  
Also prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.  
Not to be used for legal purposes.



# John H. Chafee at Pettaquamscutt Cove National Wildlife Refuge Land Protection Plan - Ownerships for Group B Rhode Island NWR Complex

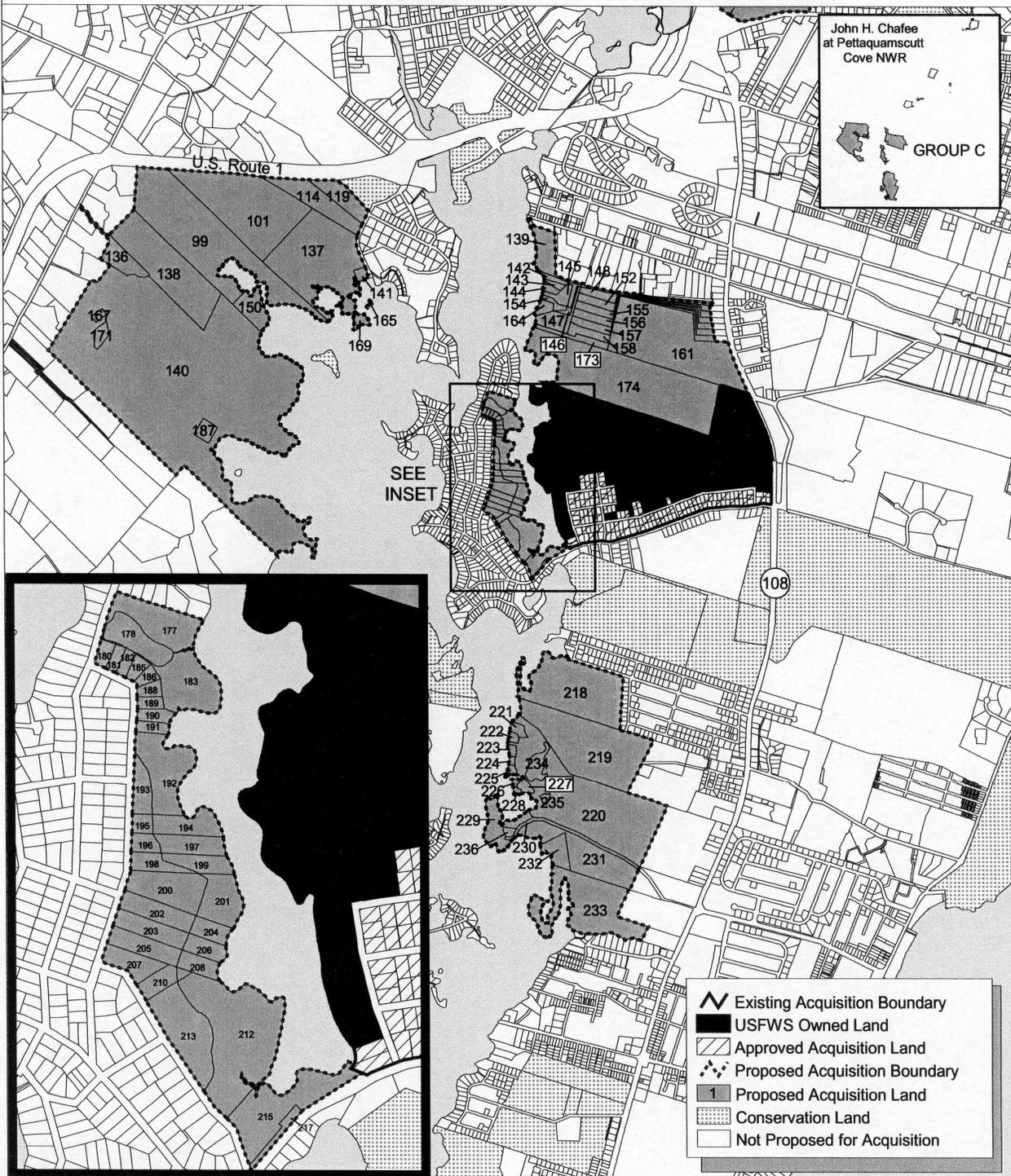


Compiled by the US Fish & Wildlife Service,  
 Region 5 Cartography & Spatial Data Services  
 Branch, Hedy, Massachusetts using Towns of  
 South Kingstown (2000) & Narragansett  
 (1988), and USFWS (2001) data.  
 Map prepared for Rhode Island NWR Complex  
 Land Protection Plan  
 April 2002  
 Not to be used for legal purposes.



Map CH-4

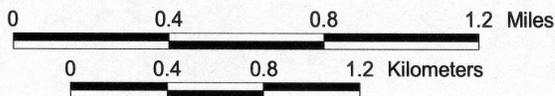
# John H. Chafee at Pettaquamscutt Cove National Wildlife Refuge Land Protection Plan - Ownerships for Group C Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hadley, Massachusetts using Town of South Kingstown (2000) & Narragansett (1998), and USFWS (2001) data.

Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.

Not to be used for legal purposes.



## Rhode Island National Wildlife Refuge Complex Land Protection Plan

## John H. Chafee National Wildlife Refuge

REFUGE	Group	SERVICE PARCEL ID	OWNERSHIP	ACRES*	PRIORITY	PROTECTION OPTION
Chafee	A	1	private	36.98	1	Fee Simple
Chafee	A	6	public	2.41	1	Fee Simple
Chafee	A	8	public	4.92	1	Fee Simple
Chafee	A	14	private	0.73	1	Fee Simple
Chafee	B	29	private	33.54	1	Fee Simple
Chafee	B	35	private	0.41	1	Fee Simple
Chafee	B	36	private	0.33	1	Fee Simple
Chafee	B	37	private	0.33	1	Fee Simple
Chafee	B	40	private	0.31	1	Fee Simple
Chafee	B	42	private	0.32	1	Fee Simple
Chafee	B	48	private	0.31	1	Fee Simple
Chafee	B	49	private	0.26	1	Fee Simple
Chafee	B	50	private	0.27	2	Fee Simple
Chafee	B	52	private	0.34	2	Fee Simple
Chafee	B	53	private	10.27	1	Fee Simple
Chafee	B	54	unknown	19.39	1	Fee Simple
Chafee	C	99	private	52.19	1	Fee Simple
Chafee	C	101	private	38.65	1	Fee Simple
Chafee	C	114	private	10.33	2	Fee Simple
Chafee	C	119	private	6.04	2	Fee Simple
Chafee	C	136	private	6.09	3	Fee Simple
Chafee	C	137	private	37.81	1	Fee Simple
Chafee	C	138	private	29.46	1	Fee Simple
Chafee	C	139	private	7.03	1	Fee Simple
Chafee	C	140	private	209.35	1	Fee Simple
Chafee	C	141	private	0.99	1	Fee Simple
Chafee	C	142	private	1.53	1	Fee Simple
Chafee	C	143	private	0.60	1	Fee Simple
Chafee	C	144	private	0.79	1	Fee Simple
Chafee	C	145	private	1.87	1	Fee Simple
Chafee	C	146	private	0.57	1	Fee Simple
Chafee	C	147	private	3.84	1	Fee Simple
Chafee	C	148	unknown	1.87	1	Fee Simple
Chafee	C	150	private	5.32	1	Fee Simple
Chafee	C	152	unknown	2.94	1	Fee Simple
Chafee	C	154	private	0.91	1	Fee Simple
Chafee	C	155	unknown	2.06	1	Fee Simple
Chafee	C	156	unknown	2.11	1	Fee Simple
Chafee	C	157	unknown	2.13	1	Fee Simple
Chafee	C	158	unknown	4.01	1	Fee Simple
Chafee	C	161	unknown	41.97	2	Fee Simple

\*Acres generated from USFWS Geographic Information System data, not from town tax records

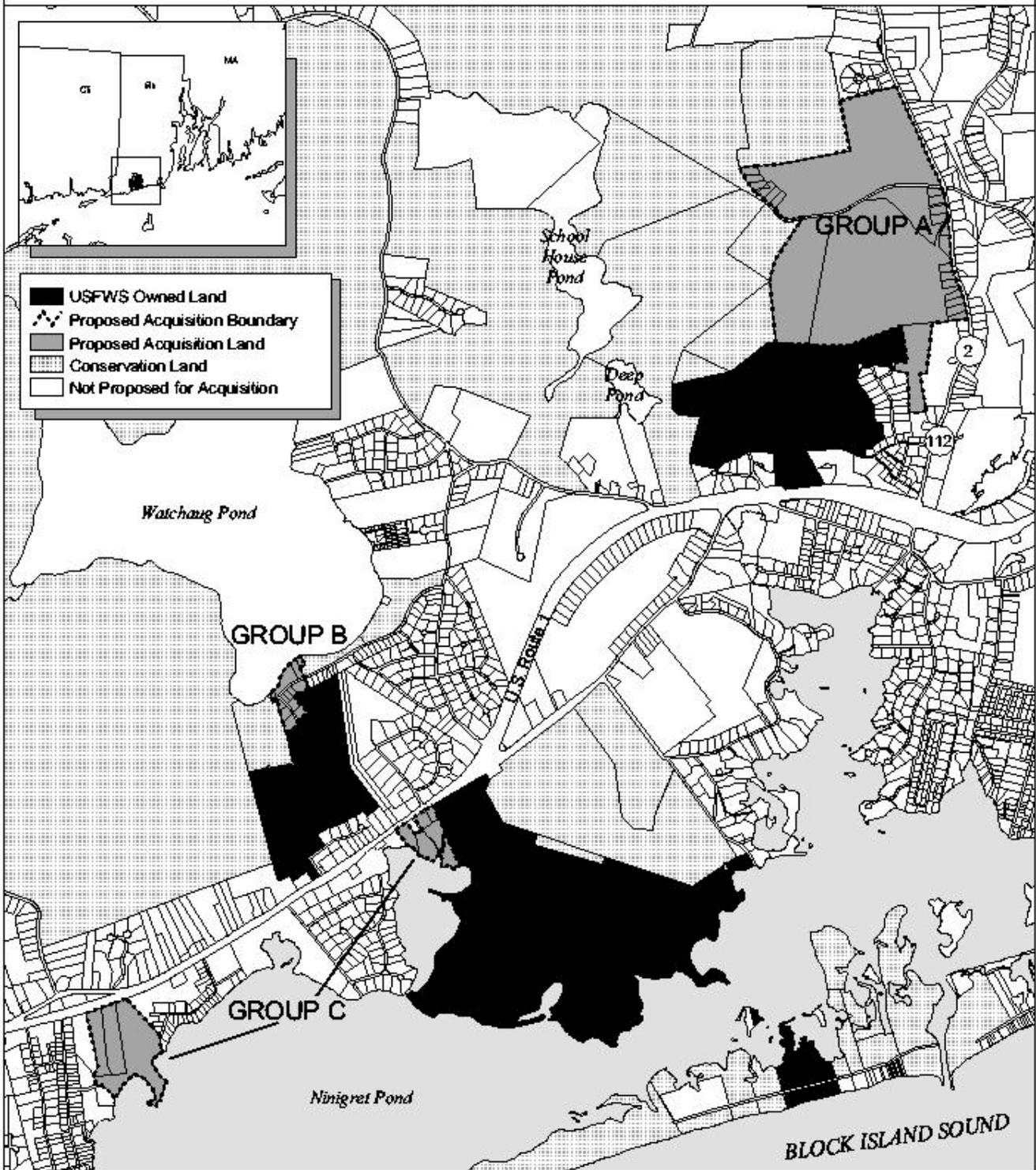
REFUGES	Group	SERVICE PARCEL ID	OWNERSHIP	ACRES*	PRIORITY	PROTECTION OPTION
Chafee	C	164	private	1.26	1	Fee Simple
Chafee	C	165	private	0.13	1	Fee Simple
Chafee	C	167	private	0.64	3	Fee Simple
Chafee	C	169	private	1.14	1	Fee Simple
Chafee	C	171	private	1.51	3	Fee Simple
Chafee	C	173	private	2.44	1	Fee Simple
Chafee	C	174	private	58.27	1	Fee Simple
Chafee	C	177	private	1.84	1	Fee Simple
Chafee	C	178	unknown	1.16	1	Fee Simple
Chafee	C	180	private	0.24	2	Fee Simple
Chafee	C	181	private	0.20	2	Fee Simple
Chafee	C	182	private	0.20	2	Fee Simple
Chafee	C	183	private	2.01	1	Fee Simple
Chafee	C	185	private	0.23	2	Fee Simple
Chafee	C	186	private	0.20	2	Fee Simple
Chafee	C	188	private	0.23	2	Fee Simple
Chafee	C	189	private	0.22	2	Fee Simple
Chafee	C	190	private	0.31	2	Fee Simple
Chafee	C	191	private	0.24	2	Fee Simple
Chafee	C	192	private	2.05	1	Fee Simple
Chafee	C	193	private	0.62	1	Fee Simple
Chafee	C	194	private	0.98	1	Fee Simple
Chafee	C	195	private	0.27	1	Fee Simple
Chafee	C	196	private	0.34	1	Fee Simple
Chafee	C	197	private	0.85	1	Fee Simple
Chafee	C	198	private	0.56	1	Fee Simple
Chafee	C	199	private	0.71	1	Fee Simple
Chafee	C	200	private	1.62	1	Fee Simple
Chafee	C	201	private	1.22	1	Fee Simple
Chafee	C	202	private	0.96	1	Fee Simple
Chafee	C	203	private	0.91	1	Fee Simple
Chafee	C	204	private	0.47	1	Fee Simple
Chafee	C	205	private	0.90	1	Fee Simple
Chafee	C	206	private	0.52	1	Fee Simple
Chafee	C	207	private	0.82	1	Fee Simple
Chafee	C	208	private	0.49	1	Fee Simple
Chafee	C	210	private	0.59	1	Fee Simple
Chafee	C	212	private	5.48	1	Fee Simple
Chafee	C	213	private	2.35	1	Fee Simple
Chafee	C	215	private	2.93	1	Fee Simple
Chafee	C	217	private	0.33	1	Fee Simple
Chafee	C	218	private	31.17	1	Fee Simple
Chafee	C	219	private	37.52	1	Fee Simple
Chafee	C	220	private	52.75	1	Fee Simple

\*Acres generated from USFWS Geographic Information System data, not from town tax records

REFUGE	Group	SERVICE PARCEL ID	OWNERSHIP	ACRES*	PRIORITY	PROTECTION OPTION
Chafee	C	221	private	1.07	1	Fee Simple
Chafee	C	222	private	0.62	1	Fee Simple
Chafee	C	223	private	0.55	1	Fee Simple
Chafee	C	224	private	0.34	1	Fee Simple
Chafee	C	225	private	0.53	1	Fee Simple
Chafee	C	226	private	0.30	1	Fee Simple
Chafee	C	227	private	1.01	1	Fee Simple
Chafee	C	228	private	0.35	1	Fee Simple
Chafee	C	229	private	6.70	1	Fee Simple
Chafee	C	230	private	2.93	1	Fee Simple
Chafee	C	231	private	17.55	1	Fee Simple
Chafee	C	232	private	4.00	1	Fee Simple
Chafee	C	233	private	27.34	1	Fee Simple
Chafee	C	234	unknown	2.89	1	Fee Simple
Chafee	C	235	unknown	0.46	1	Fee Simple
Chafee	C	236	private	0.59	1	Fee Simple

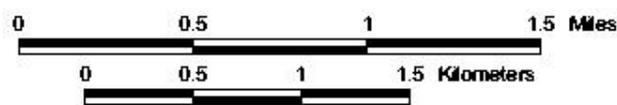
\*Acres generated from USFWS Geographic Information System data, not from town tax records

# Ninigret National Wildlife Refuge Land Protection Plan Rhode Island NWR Complex



	USFWS Owned Land
	Proposed Acquisition Boundary
	Proposed Acquisition Land
	Conservation Land
	Not Proposed for Acquisition

Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hedy, Massachusetts using Towns of Charlestown (1999), and USFWS (2001) data.  
Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.  
Not to be used for legal purposes.

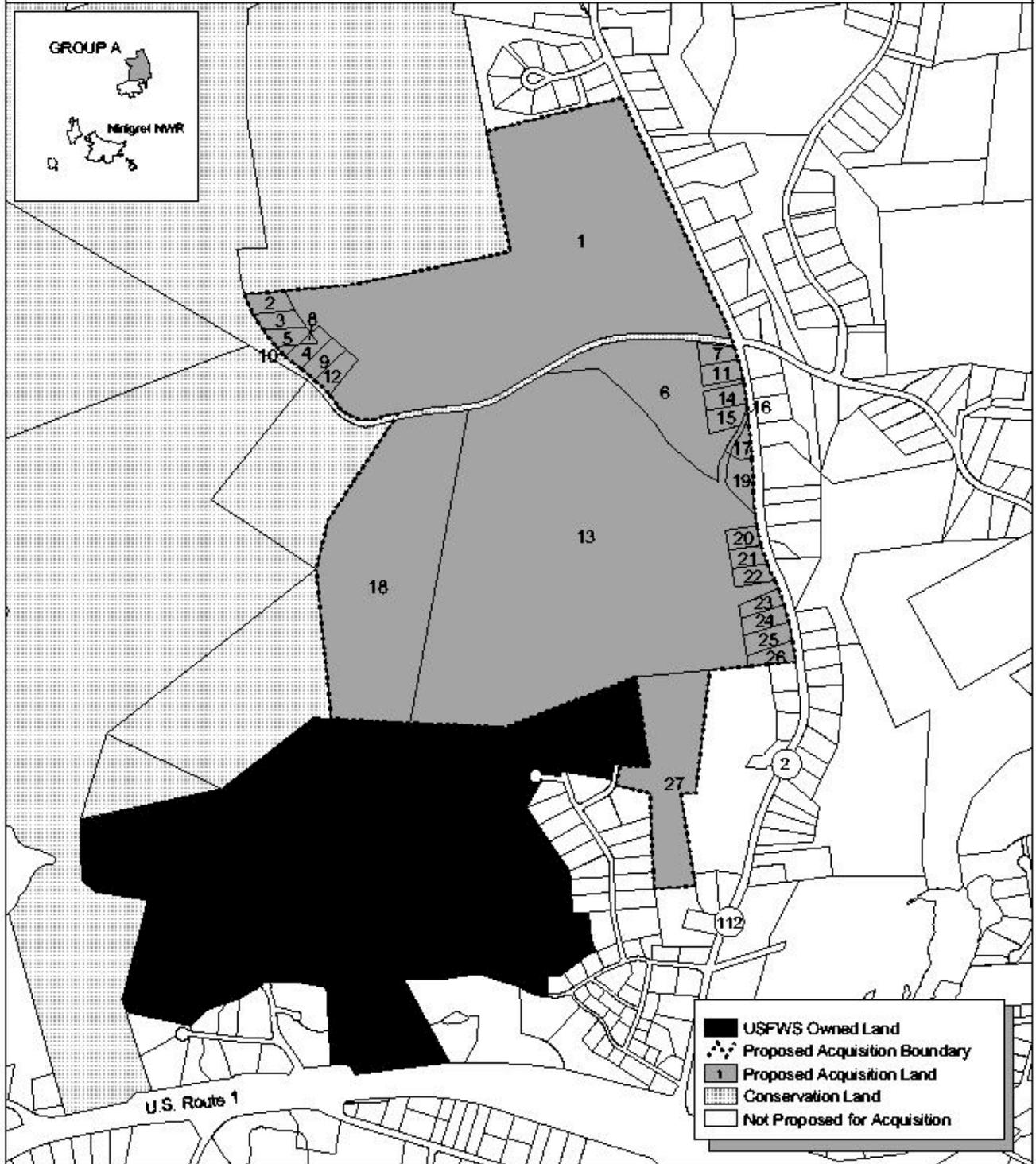


Map M-2

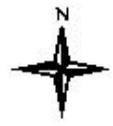
# Ninigret National Wildlife Refuge

## Land Protection Plan - Ownerships for Group A

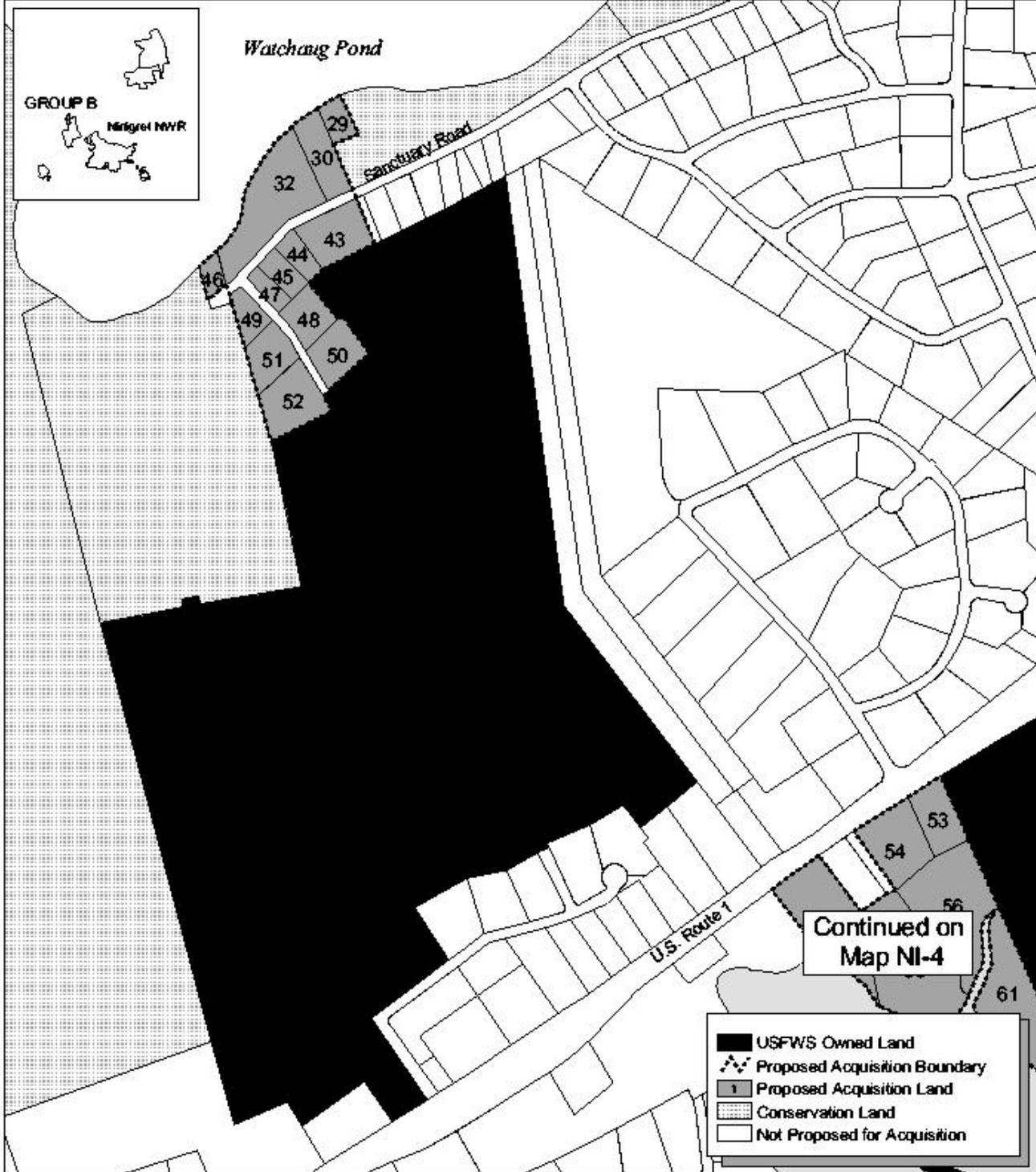
### Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hattley, Massachusetts using Towns of Charlestown (1999), and USFWS (2001) data.  
 Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.  
 Not to be used for legal purposes.



# Ninigret National Wildlife Refuge Land Protection Plan - Ownerships for Group B Rhode Island NWR Complex

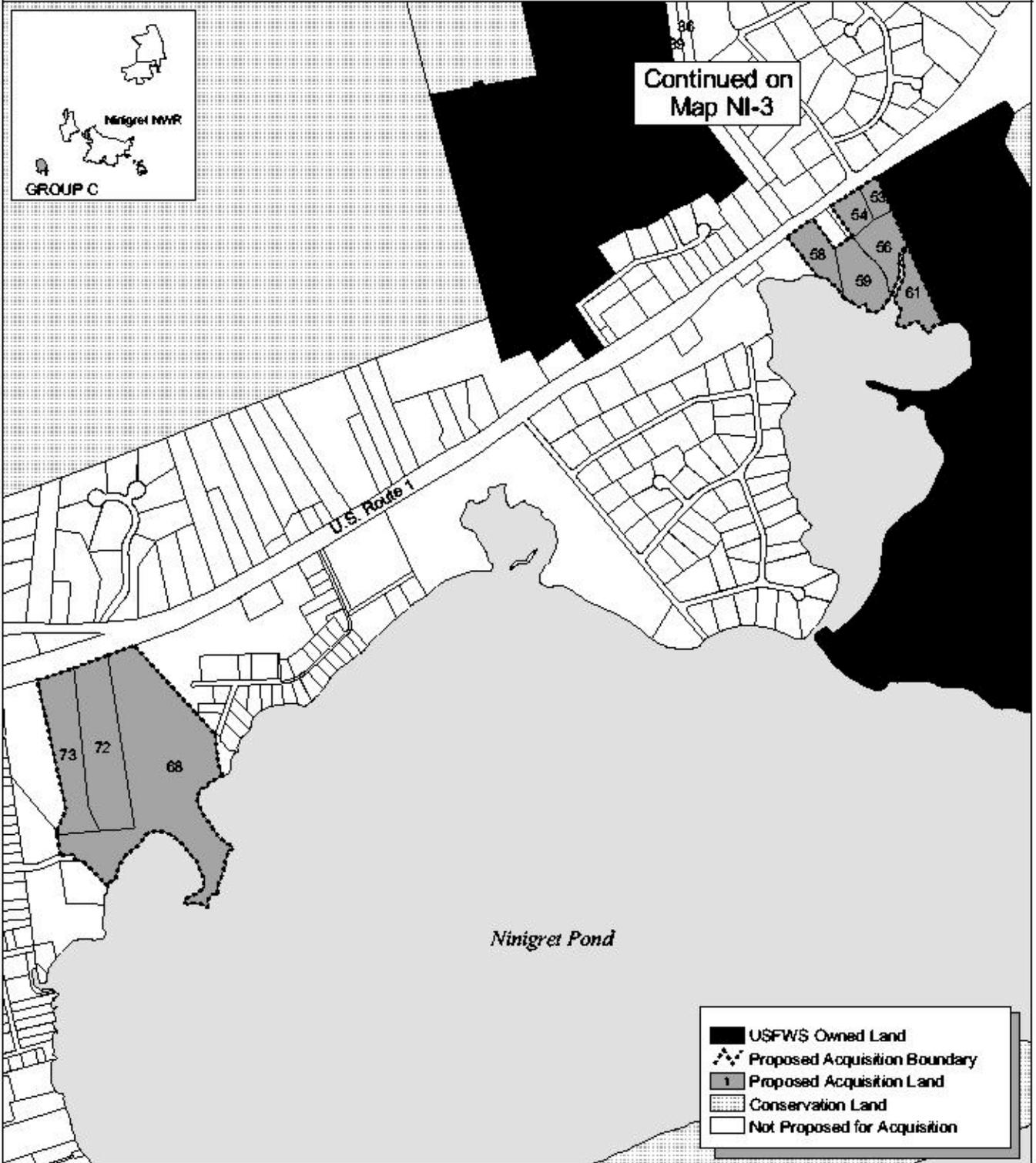


Continued on  
Map NI-4

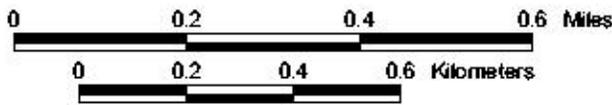
Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hattley, Massachusetts using Towns of Charlestown (1999), and USFWS (2001) data.  
Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.  
Not to be used for legal purposes.



# Ninigret National Wildlife Refuge Land Protection Plan - Ownerships for Group C Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Service Branch, Hattley, Massachusetts using Towns of Charlestown (1999), and USFWS (2001) data.  
Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.  
Not to be used for legal purposes.



## Rhode Island National Wildlife Refuge Complex Land Protection Plan

## Ninigret National Wildlife Refuge

REFUGE	Group	SERVICE PARCEL ID	OWNERSHIP	ACRES*	PRIORITY	PROTECTION OPTION
Ninigret	A	1	private	97.33	1	Fee Simple
Ninigret	A	2	private	1.23	3	Fee Simple
Ninigret	A	3	private	1.05	3	Fee Simple
Ninigret	A	4	private	1.07	3	Fee Simple
Ninigret	A	5	private	0.91	3	Fee Simple
Ninigret	A	6	private	14.97	1	Fee Simple
Ninigret	A	7	private	0.99	3	Fee Simple
Ninigret	A	8	unknown	0.15	3	Fee Simple
Ninigret	A	9	private	1.14	3	Fee Simple
Ninigret	A	10	unknown	0.17	3	Fee Simple
Ninigret	A	11	private	1.14	3	Fee Simple
Ninigret	A	12	private	1.17	3	Fee Simple
Ninigret	A	13	private	125.20	1	Fee Simple
Ninigret	A	14	private	1.18	3	Fee Simple
Ninigret	A	15	private	1.17	3	Fee Simple
Ninigret	A	16	unknown	0.31	1	Fee Simple
Ninigret	A	17	private	0.71	3	Fee Simple
Ninigret	A	18	private	45.25	1	Fee Simple
Ninigret	A	19	private	1.58	3	Fee Simple
Ninigret	A	20	private	0.93	3	Fee Simple
Ninigret	A	21	private	0.94	3	Fee Simple
Ninigret	A	22	private	0.98	3	Fee Simple
Ninigret	A	23	private	0.98	3	Fee Simple
Ninigret	A	24	private	1.17	3	Fee Simple
Ninigret	A	25	private	1.34	3	Fee Simple
Ninigret	A	26	private	1.12	3	Fee Simple
Ninigret	A	27	private	16.13	1	Fee Simple
Ninigret	B	29	private	0.45	1	Fee Simple
Ninigret	B	30	private	1.04	1	Fee Simple
Ninigret	B	32	public	2.80	1	Fee Simple
Ninigret	B	43	private	1.30	1	Fee Simple
Ninigret	B	44	private	0.47	1	Fee Simple
Ninigret	B	45	private	0.49	1	Fee Simple
Ninigret	B	46	private	0.31	1	Fee Simple
Ninigret	B	47	private	0.35	1	Fee Simple
Ninigret	B	48	private	0.82	1	Fee Simple
Ninigret	B	49	private	0.53	1	Fee Simple
Ninigret	B	50	private	0.98	1	Fee Simple
Ninigret	B	51	private	0.91	1	Fee Simple
Ninigret	B	52	private	1.37	1	Fee Simple
Ninigret	C	53	private	1.06	1	Fee Simple
Ninigret	C	54	private	1.61	1	Fee Simple

\* Acres generated from US Fish & Wildlife Service Geographic Information System data, not from town tax records.

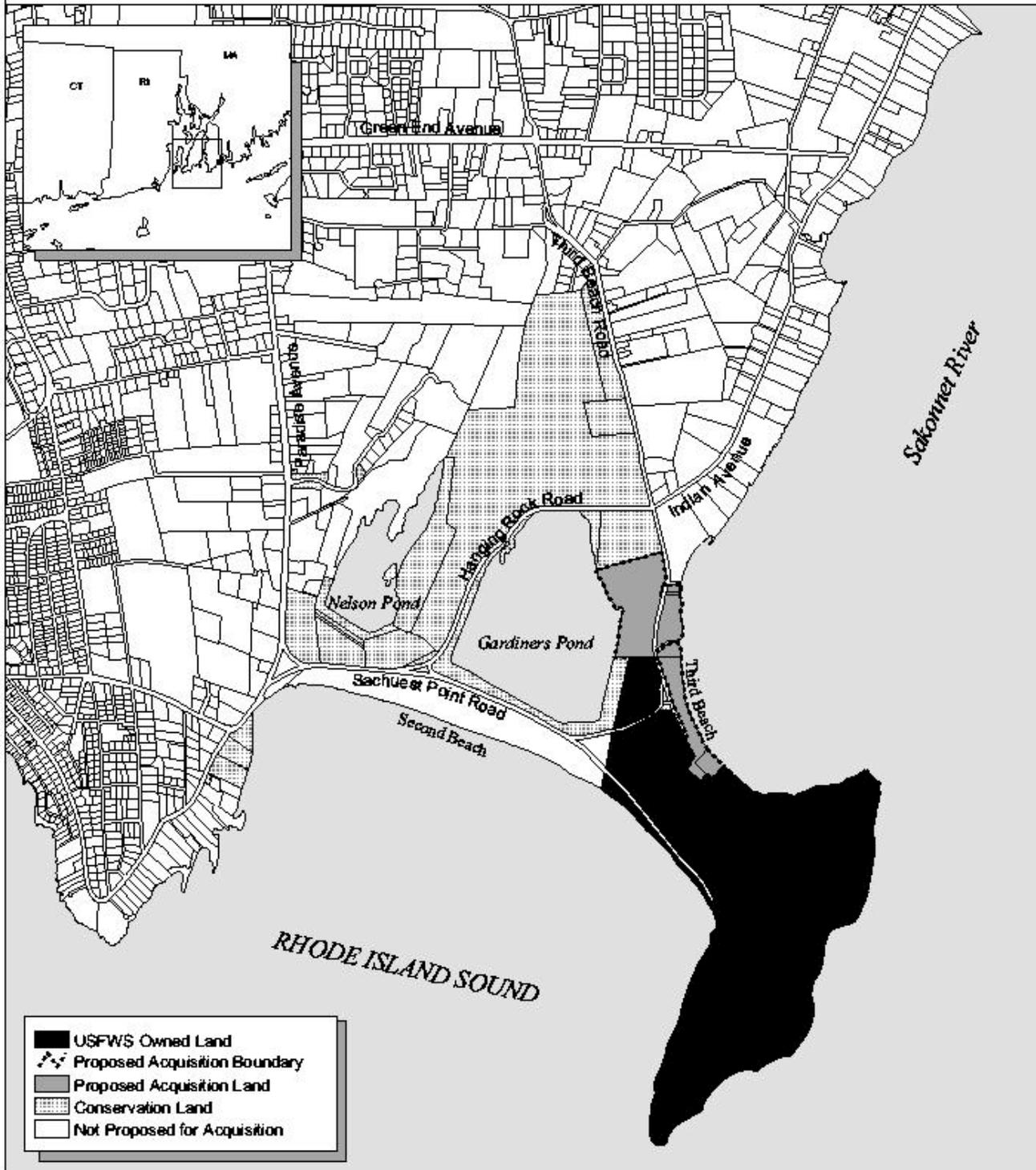
<b>REFUGE</b>	<b>Group</b>	<b>SERVICE PARCEL ID</b>	<b>OWNERSHIP</b>	<b>ACRES*</b>	<b>PRIORITY</b>	<b>PROTECTION OPTION</b>
Ninigret	C	56	private	3.06	1	Fee Simple
Ninigret	C	58	public	2.64	1	Fee Simple
Ninigret	C	59	private	3.72	1	Fee Simple
Ninigret	C	61	public	2.88	1	Fee Simple
Ninigret	C	68	private	26.34	1	Fee Simple
Ninigret	C	72	private	9.50	1	Fee Simple
Ninigret	C	73	private	7.15	1	Fee Simple

\* Acres generated from US Fish & Wildlife Service Geographic Information System data, not from town tax records.

# Sachuest Point National Wildlife Refuge

## *Land Protection Plan*

### Rhode Island NWR Complex

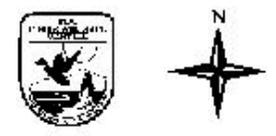
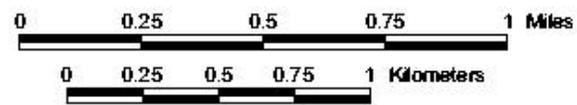


	USFWS Owned Land
	Proposed Acquisition Boundary
	Proposed Acquisition Land
	Conservation Land
	Not Proposed for Acquisition

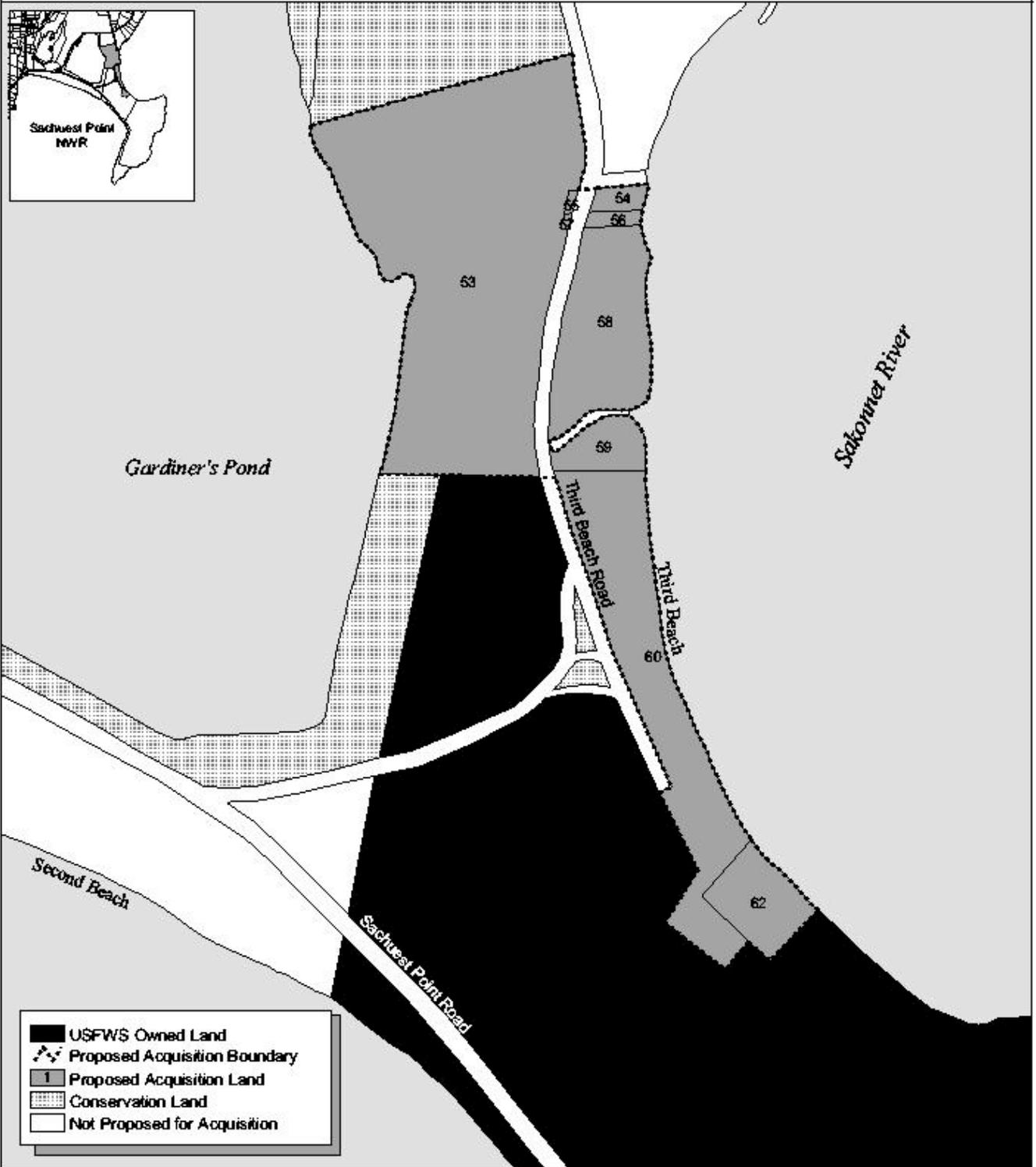
Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hedy, Massachusetts using Towns of Middleboro (1996), and USFWS (2001) data.

Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.

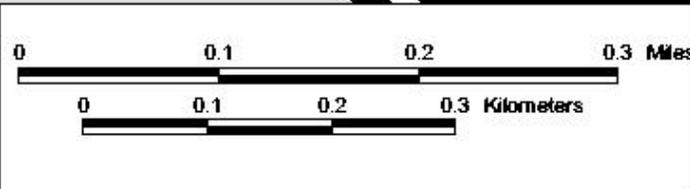
Not to be used for legal purposes.



## Sachuest Point National Wildlife Refuge *Land Protection Plan - Ownerships* Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service,  
 Region 5 Cartography & Spatial Data Services  
 Bangor, Hattley, Massachusetts using Towns of  
 Middleboro (1996), and USFWS (2001)  
 data.  
 Map prepared for Rhode Island NWR Complex  
 Land Protection Plan.  
 April 2002  
 Not to be used for legal purposes.



## Rhode Island National Wildlife Refuge Complex Land Protection Plan

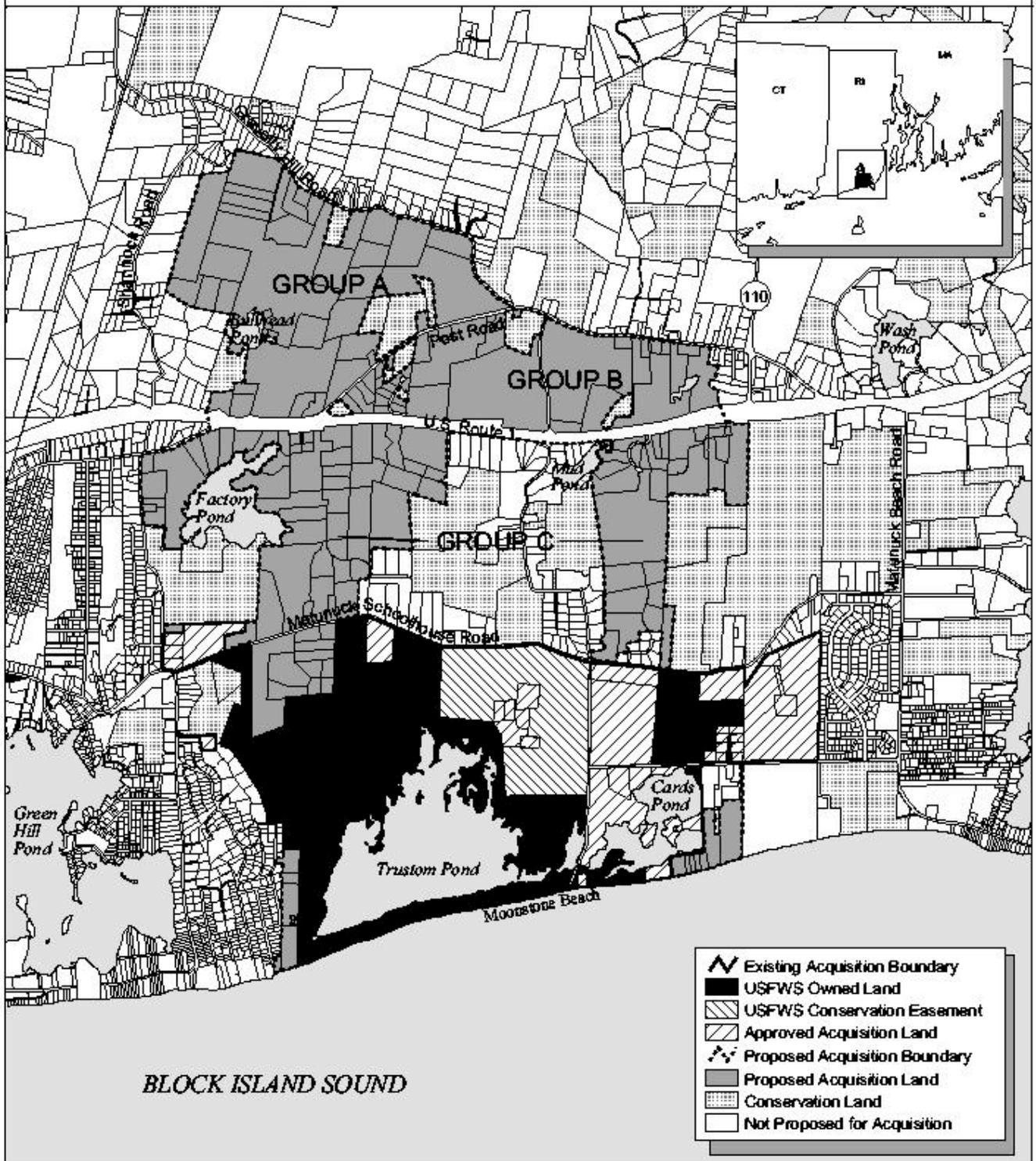
## Sachuest Point National Wildlife Refuge

<b>REFUGE</b>	<b>SERVICE PARCEL ID</b>	<b>OWNERSHIP</b>	<b>ACRES*</b>	<b>PRIORITY</b>	<b>PROTECTION OPTION</b>
Sachuest Point	53	private	19.21	1	Fee Simple
Sachuest Point	54	private	0.35	1	Fee Simple
Sachuest Point	55	private	0.05	1	Fee Simple
Sachuest Point	56	private	0.22	1	Fee Simple
Sachuest Point	57	private	0.03	1	Fee Simple
Sachuest Point	58	private	4.27	1	Fee Simple
Sachuest Point	59	private	1.07	1	Fee Simple
Sachuest Point	60	public	7.47	1	Fee Simple
Sachuest Point	62	private	1.82	1	Fee Simple

# Trustom Pond National Wildlife Refuge

## Land Protection Plan

### Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hedy, Massachusetts using Town of South Kingstown (2000), and USFWS (2001) data.

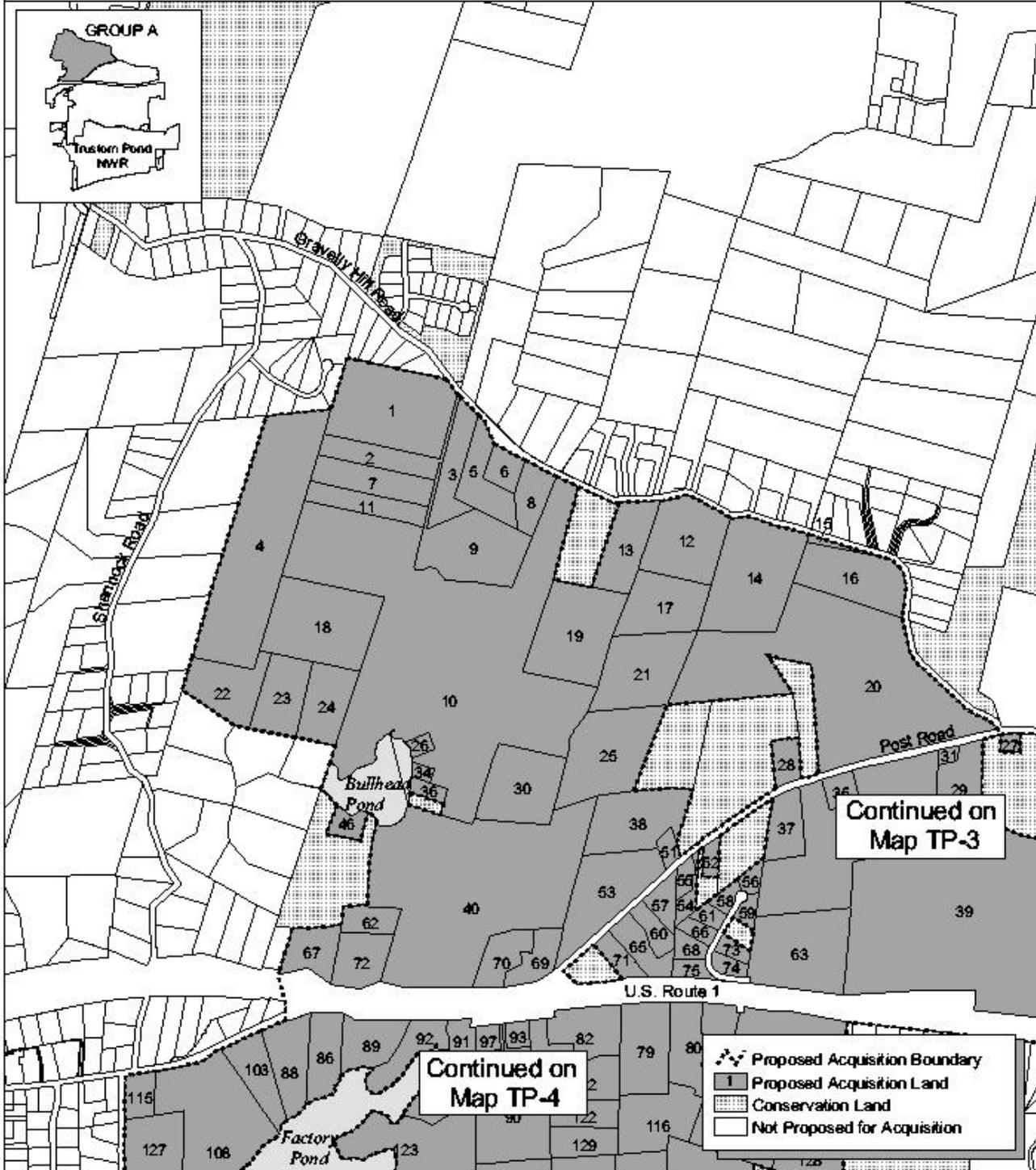
Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002

Not to be used for legal purposes.



Map TP-2

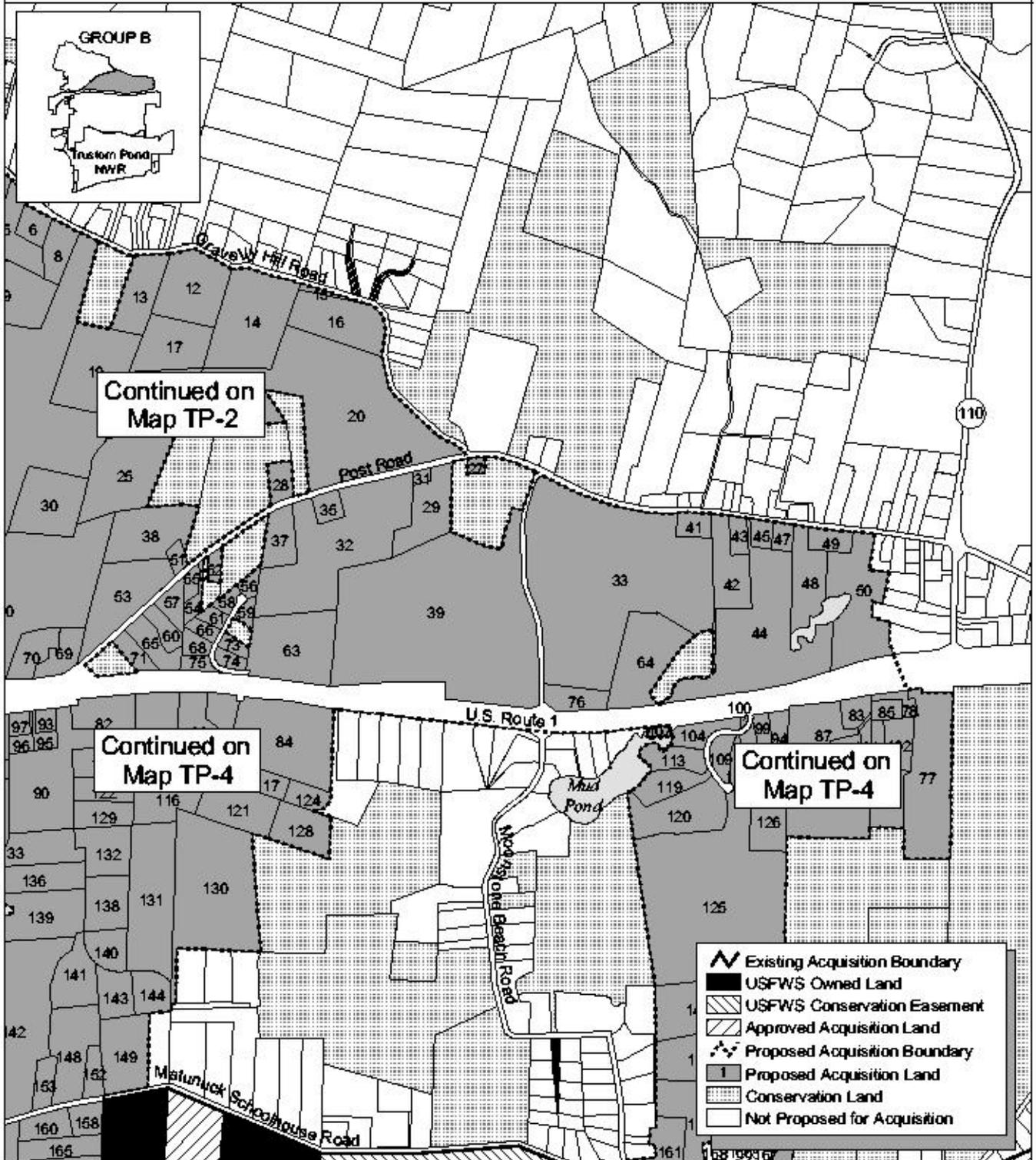
## Trustom Pond National Wildlife Refuge Land Protection Plan - *Ownerships for Group A* Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hallowell, Maine, using GIS data from the State of Rhode Island (2000), and USFWS (2001) data.  
Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.  
Not to be used for legal purposes.



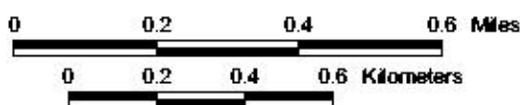
# Trustom Pond National Wildlife Refuge Land Protection Plan - Ownerships for Group B Rhode Island NWR Complex



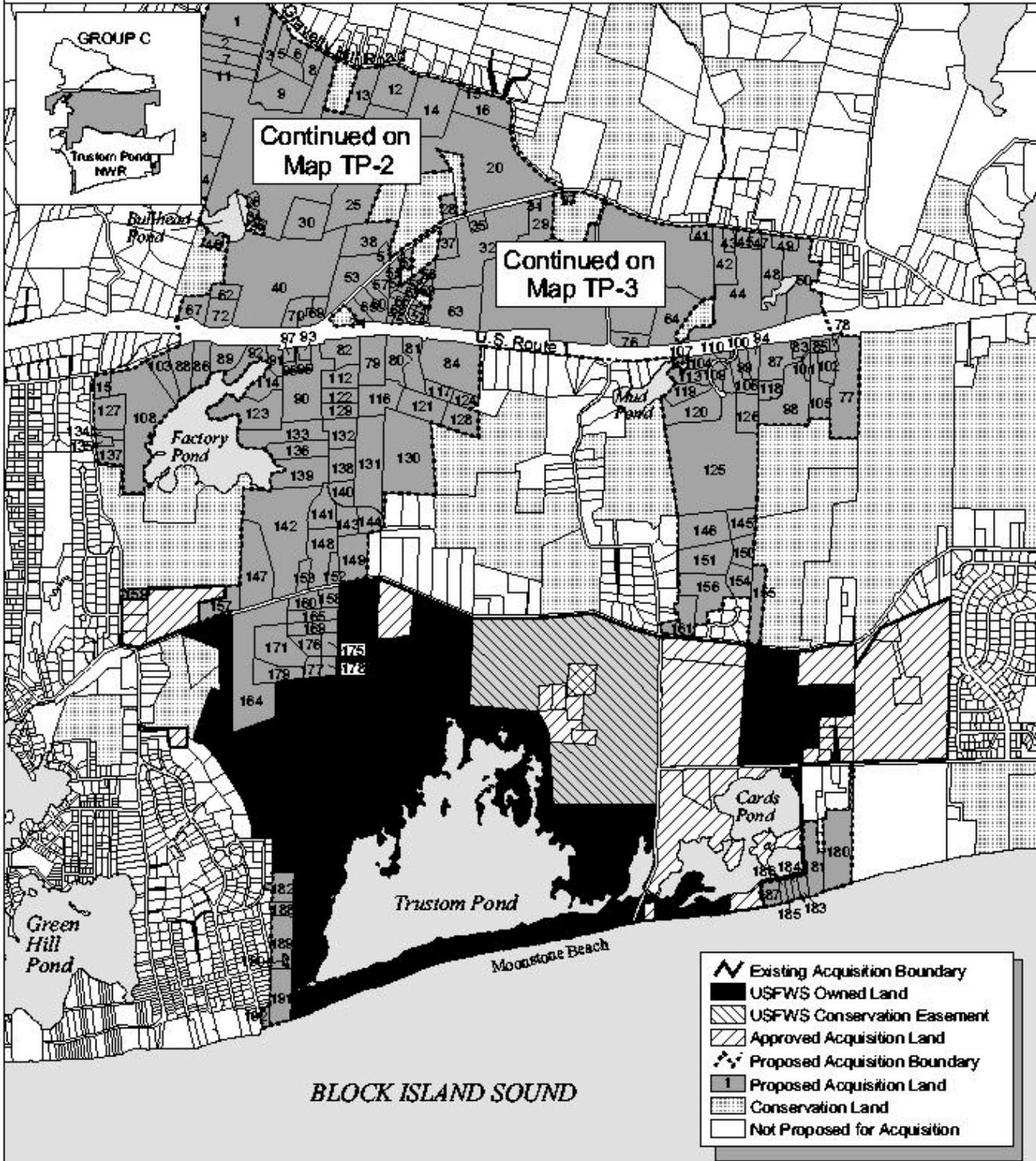
Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hattley, Massachusetts using Towns of South Weymouth (2001), and USFWS (2001) data.

Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.

Not to be used for legal purposes.



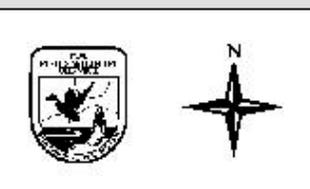
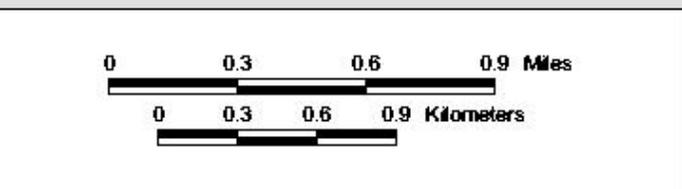
# Trustom Pond National Wildlife Refuge Land Protection Plan - Ownerships for Group C Rhode Island NWR Complex



Compiled by the US Fish & Wildlife Service, Region 5 Cartography & Spatial Data Services Branch, Hattley, Massachusetts using Towns of South Kingstown (2000), and USFWS (2001) data.

Map prepared for Rhode Island NWR Complex Land Protection Plan, April 2002.

Not to be used for legal purposes.



Rhode Island National Wildlife Refuge Complex Land Protection Plan  
Trustom Pond National Wildlife Refuge

REFUGE	Group	SERVICE PARCEL ID	OWNERSHIP	ACRES*	PRIORITY	PROTECTION OPTION
Trustom Pond	A	1	private	15.07	2	Conservation Easement
Trustom Pond	A	2	private	4.62	1	Conservation Easement
Trustom Pond	A	3	private	4.66	2	Conservation Easement
Trustom Pond	A	4	private	26.72	1	Conservation Easement
Trustom Pond	A	5	private	4.88	3	Conservation Easement
Trustom Pond	A	6	private	2.05	3	Conservation Easement
Trustom Pond	A	7	private	5.37	1	Conservation Easement
Trustom Pond	A	8	private	3.17	3	Conservation Easement
Trustom Pond	A	9	private	10.58	1	Conservation Easement
Trustom Pond	A	10	private	80.50	1	Fee Simple
Trustom Pond	A	11	unknown	4.07	1	Conservation Easement
Trustom Pond	A	12	private	9.28	3	Fee Simple
Trustom Pond	A	13	private	5.96	3	Fee Simple
Trustom Pond	A	14	private	14.29	3	Fee Simple
Trustom Pond	A	15	private	0.50	3	Fee Simple
Trustom Pond	A	16	private	8.49	3	Fee Simple
Trustom Pond	A	17	private	7.40	1	Fee Simple
Trustom Pond	A	18	unknown	13.20	1	Conservation Easement
Trustom Pond	A	19	private	12.00	1	Fee Simple
Trustom Pond	A	20	private	45.23	1	Fee Simple
Trustom Pond	A	21	private	9.70	1	Fee Simple
Trustom Pond	A	22	private	6.43	2	Conservation Easement
Trustom Pond	A	23	private	5.72	2	Conservation Easement
Trustom Pond	A	24	private	5.61	2	Conservation Easement
Trustom Pond	A	25	private	11.66	1	Fee Simple
Trustom Pond	A	26	private	0.69	3	Fee Simple
Trustom Pond	B	27	private	0.60	3	Fee Simple
Trustom Pond	B	29	private	6.65	2	Fee Simple
Trustom Pond	A	30	private	8.73	1	Fee Simple
Trustom Pond	B	31	private	0.50	3	Fee Simple
Trustom Pond	B	32	private	24.61	1	Fee Simple
Trustom Pond	B	33	private	55.96	1	Fee Simple
Trustom Pond	A	34	private	0.49	3	Fee Simple
Trustom Pond	B	35	private	1.67	3	Fee Simple
Trustom Pond	A	36	private	0.93	3	Fee Simple
Trustom Pond	B	37	private	3.75	3	Fee Simple
Trustom Pond	A	38	private	8.65	3	Fee Simple
Trustom Pond	B	39	private	61.16	1	Fee Simple
Trustom Pond	A	40	private	46.23	1	Fee Simple
Trustom Pond	B	41	private	1.81	3	Fee Simple
Trustom Pond	B	42	private	5.84	2	Fee Simple

\* Acres generated from US Fish & Wildlife Service Geographic Information System data, not from town tax records.

REFUGE	Group	SERVICE PARCEL ID	OWNERSHIP	ACRES*	PRIORITY	PROTECTION OPTION
Trustom Pond	C	134	private	1.38	3	Fee Simple
Trustom Pond	C	135	private	0.94	3	Fee Simple
Trustom Pond	C	136	private	5.75	2	Fee Simple
Trustom Pond	C	137	private	3.23	3	Fee Simple
Trustom Pond	C	138	private	5.04	1	Conservation Easement
Trustom Pond	C	139	private	8.94	1	Fee Simple
Trustom Pond	C	140	private	3.25	1	Conservation Easement
Trustom Pond	C	141	private	5.33	1	Conservation Easement
Trustom Pond	C	142	private	27.89	1	Fee Simple
Trustom Pond	C	143	private	3.58	3	Conservation Easement
Trustom Pond	C	144	private	3.26	3	Conservation Easement
Trustom Pond	C	145	private	4.25	1	Conservation Easement
Trustom Pond	C	146	private	9.31	1	Fee Simple
Trustom Pond	C	147	private	13.37	1	Fee Simple
Trustom Pond	C	148	private	7.97	2	Fee Simple
Trustom Pond	C	149	private	7.51	2	Fee Simple
Trustom Pond	C	150	private	3.67	2	Conservation Easement
Trustom Pond	C	151	private	8.86	1	Fee Simple
Trustom Pond	C	152	private	1.90	3	Conservation Easement
Trustom Pond	C	153	private	2.09	3	Conservation Easement
Trustom Pond	C	154	private	4.18	1	Conservation Easement
Trustom Pond	C	155	private	5.88	1	Conservation Easement
Trustom Pond	C	156	private	9.48	1	Fee Simple
Trustom Pond	C	157	private	4.67	3	Fee Simple
Trustom Pond	C	158	private	2.25	3	Fee Simple
Trustom Pond	C	159	private	1.46	1	Fee Simple
Trustom Pond	C	160	private	2.86	3	Fee Simple
Trustom Pond	C	161	private	5.36	1	Fee Simple
Trustom Pond	C	164	unknown	24.10	1	Fee Simple
Trustom Pond	C	165	private	3.73	3	Fee Simple
Trustom Pond	C	169	private	3.76	3	Fee Simple
Trustom Pond	C	171	private	9.38	1	Fee Simple
Trustom Pond	C	175	private	2.25	3	Fee Simple
Trustom Pond	C	176	private	2.92	3	Fee Simple
Trustom Pond	C	177	private	2.07	3	Fee Simple
Trustom Pond	C	178	private	2.02	3	Fee Simple
Trustom Pond	C	179	private	5.09	1	Fee Simple
Trustom Pond	C	180	private	13.18	1	Fee Simple
Trustom Pond	C	181	private	6.78	1	Fee Simple
Trustom Pond	C	182	private	4.24	1	Fee Simple
Trustom Pond	C	183	private	1.20	3	Conservation Easement
Trustom Pond	C	184	private	0.80	3	Conservation Easement
Trustom Pond	C	185	private	0.81	3	Conservation Easement
Trustom Pond	C	186	private	0.82	3	Conservation Easement
Trustom Pond	C	187	unknown	2.48	1	Conservation Easement

\* Acres generated from US Fish & Wildlife Service Geographic Information System data, not from town tax records.

<b>REFUGE</b>	<b>Group</b>	<b>SERVICE PARCEL ID</b>	<b>OWNERSHIP</b>	<b>ACRES*</b>	<b>PRIORITY</b>	<b>PROTECTION OPTION</b>
Trustom Pond	C	188	private	1.89	1	Fee Simple
Trustom Pond	C	189	private	6.59	1	Fee Simple
Trustom Pond	C	190	private	0.28	1	Fee Simple
Trustom Pond	C	191	private	6.81	1	Fee Simple
Trustom Pond	C	192	private	0.99	1	Fee Simple

\* Acres generated from US Fish & Wildlife Service Geographic Information System data, not from town tax records.

## Appendix B. Summary of Public Comments on Draft Land Protection Plan

This summary includes the responses from affected landowners and other interested parties to the draft Land Protection Plan (LPP) for the Rhode Island National Wildlife Refuge Complex (Refuge Complex). We distributed 370 copies of the draft LPP for a 30-day comment period, targeting all affected landowners, our conservation partners, Congressional Offices, State of Rhode Island local agency offices, respective town offices, and the Narragansett Indian Tribal Office. This comment period occurred from November 13, 2001 through December 13, 2001. The purpose was to provide an opportunity to express concerns or comments to the Service regarding the draft LPP proposed action. Comments were directed to Charlie Vandemoer, the Refuge Manager for the Refuge Complex.

We received a total of 41 responses; four were e-mails; two were written letters; and 35 were phone conversations. Of the 41 responses, 37 were from affected landowners within proposed national wildlife refuge (Refuge) acquisition boundaries. The remaining four were from conservation organizations or municipalities.

Of the 37 landowners, all but three expressed an interest in Service acquisition of some or all of their property, either in fee simple or as a conservation easement. Of the three, two called to simply ask questions about the plan and how it might effect their use of their property. Only one respondent, the Norman Bird Sanctuary, suggested we consider removing their lands from the proposed acquisition boundary for Sachuest Point Refuge.

One landowner recommended we add a small parcel they owned, just outside our proposed acquisition boundary for Trustom Pond Refuge, but contiguous with a second parcel they owned within our proposed boundary. They stated they would only consider selling both parcels together in one deal. Another affected Trustom Pond landowner suggested removal of a subdivision from the proposed acquisition boundary, while recommending the addition of larger lots immediately adjacent to the refuge instead. Two other affected landowners within the Trustom Pond Refuge proposed boundary provided suggestions on how to approach their neighbors for acquisition of their properties by the Service.

Of the four responses from other organizations and municipalities, one (Town of New Shoreham) had a question regarding property boundaries near Sandy Point on the northern tip of Block Island. Two other respondents asked for clarification or additional copies of the plan. The Narrow River Preservation Association wrote a letter supporting the draft LPP and suggested expansion of the proposed boundary on the John H. Chafee Refuge. The Town of South Kingstown wrote a letter supporting the draft LPP and encouraging the Service's efforts to protect critical resource areas within the Region. The Block Island Times wrote a newspaper article on the draft LPP, which is best described as a neutral position.

In summary, virtually all of the public responses to the draft LPP proposed action were positive, supporting an expanded land acquisition program for each of the five Rhode Island National Wildlife Refuges.

## Appendix C. Statement of Support from Connecticut River/Long Island Sound Ecosystem Team



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Connecticut River/Long Island Sound Ecosystem Team  
3769D Old Post Road, P.O. Box 307  
Charlestown, RI 02813  
Phone (401) 364-9124 FAX (401) 364-0170



October 24, 2001

Memorandum

To: Dr. Mamie Parker, Regional Director, Hadely, MA

From: Donald Henne, Leader, Connecticut River - Long Island Sound Ecosystem Team 

Subject: Land Protection Plan for the Rhode Island NWR Complex

The Connecticut River/Long Island Sound Ecosystem Team assigned a sub-group to review the proposed Land Protection Plan (LPP) for the Rhode Island Refuge Complex. The CTR-LIS Team now offers the following observations and recommendations in support of the LPP.

The LPP identifies roughly 3,243 acres of land targeted for acquisition.(or for protection with a conservation easement) which would be added to the National Wildlife Refuge System in Rhode Island. This LPP is being incorporated into the final Comprehensive Conservation Plan, currently scheduled for completion in late October.

This plan is founded upon a multi-tiered landscape level assessment which identified areas of Biological Significance, based on the combined work of the Southern New England - New York Bight Coastal Program Office, coordination with the New England Field Office on Endangered Species recovery and protection, State level information relative to occurrence of species and communities at risk, consultation with The Nature Conservancy on important areas of biodiversity, and in consideration of the goals of the Ecosystem Team and the Partners in Flight Landbird Conservation Plan.

Recent projections by the local towns influenced by this plan indicate protected areas will be at a premium and build-out is likely to occur within just a few decades. Large parcels of lands containing habitats key to providing for the conservation of trust resources will only be available for a short time. We feel that implementation of this LPP is vital to maintaining the ecological integrity of the coastal and adjacent upland communities in Southern Rhode Island and should be pursued as a high priority.

Please call me if you have any questions.

## Appendix F

# Refuge Operations Needs System (RONS) and Maintenance Management System (MMS) Project Lists

**Terms used in this appendix:**

**Project:** This list includes proposed projects for the Refuge Complex expected to cost more than \$20,000.

**Tier 1:** Currently identified in RONS database (July 01) as highest priority needs, including unfilled, essential staffing, and Mission-critical projects.

**Tier 2:** Currently identified in RONS database (July 01) as other important needs, including additional staffing.

**Other projects:** These projects will be added to Tier 2, but are not currently in the RONS database.

**FTE:** Full Time Staffing Equivalent. One FTE equals one person working full time for one whole year; seasonal employees are considered 0.5 FTE. (Note: staff are often “shared” by multiple RONS projects)

**Cost, year 1:** Estimated costs incurred during the first year of a project - typically higher than recurring costs, due to construction, equipment purchase, or other start-up expenses.

**Cost, recurring:** Estimated average annual project cost for subsequent years; includes recurring salary and maintenance costs.

**Project duration:** Estimated length of time for each project. Since this CCP will be revised in 15 years, the “maximum project duration” is 15 years, even though some projects may continue into the next planning cycle.

**Table F-1. Tier 1 Projects in the RONS database.**

<b>Tier 1 Projects</b>	<b>Staffing (FTEs)</b>	<b>Cost, year 1 (x \$1000)</b>	<b>Cost, recurring (x \$1000)</b>	<b>Project Duration (years)</b>
Hire assistant Outdoor Recreation Planner	1.0 FTE	128	63	15
Prevent new invasions and control the epidemic of invasive plant species	1.0 FTE	139	74	15
Grasslands/rare plant site protection	1.0 FTE	139	74	15
Clean and restore contaminated refuge lands	1.0 FTE	139	74	5
Provide an interpretive “pull off” with canoe/kayak launch at John H. Chafee NWR	0 FTE	264	10	15
Post boundaries of all refuges and new acquisitions	0 FTE	126	15	5
Hire a coordinator for the South Shore Piping Plover Program to: oversee the Program, help secure outside funding, and perform outreach and education, and possible research coordination	1.0 FTE	139	74	15
Provide Visitor Center staffing	2.0 FTE	220	90	15
Habitat and species inventory and monitoring	1.0 FTE	139	74	15
Comprehensive wildlife and aquatic inventory and monitoring	1.0 FTE	128	63	15
Hire Lead Law Enforcement Program Manager	1.0 FTE	129	64	15
Improve maintenance support of all Refuge Complex programs	0 FTE	434	75	15
Hire additional maintenance staff employee	1.0 FTE	119	54	15
Hire 2 Law Enforcement Officers	2.0 FTE	246	116	15
Increase visitor services and outreach on Block Island Refuge	0 FTE	54	35	15
Improve Sachuest Point Refuge trail system and accessibility	0 FTE	178	25	2
Improve Trustom Pond Refuge trail system and accessibility	0 FTE	227	25	2

**Table F-2. Tier 2 projects in the RONS database.**

<b>Tier 2 Projects</b>	<b>Staffing (FTEs)</b>	<b>Cost, year 1 (x \$1000)</b>	<b>Cost, recurring (x \$1000)</b>	<b>Project Duration (years)</b>
<b>Wildlife and Habitat Projects:</b>				
Manage piping plover in Rhode Island. Hire seasonal Biotechs/Park Aides to monitor and protect nesting sites, manage public use near nesting sites, and provide outreach on piping plover protection.	2.5 FTE	191	92	15
Manage habitat (planning, monitoring, and inventories) on other four Complex refuges including rare plant site management, and baseline biological inventories.	0 FTE	369	120	15
Intensify control of invasive plants across the Refuge Complex; treat at least 25 acres/year.	1.0 FTE	321	35	15
Monitor threatened and endangered species on Block Island.	1 FTE	117	48	15
Implement a comprehensive avian use and habitat monitoring plan	1.5 FTE	101	56	15
Restore on-refuge coastal and freshwater wetlands	0.6 FTE	146	23	15
With partners, restore off-refuge coastal and freshwater wetlands; provide technical and resource support	0.6 FTE	108	21	15
Provide on-site biological and public use programs at Sachuest Point Refuge	1.0 FTE	116	82	15
Control spread of invasive plant species on Refuge Complex	1.0 FTE	635	235	15
Study SAV production in coastal salt ponds: Trustom Pond NWR	0.5 FTE	44	17	15
Conduct biological inventorying and monitoring & restore habitat at Sachuest Point NWR	0 FTE	95	20	15
<b>Public Use Projects:</b>				
Provide planning and data management in support of visitor services	1.0 FTE	78	30	15
Improve Refuge pamphlets, trail guides, species checklists, viewing guides, and other literature	0 FTE	261	22	5
Provide interpretation at habitat restoration sites; improve interpretive signing and kiosk replacement.	0 FTE	313	30	5
Develop environmental education curriculum	0.5 FTE	756	35	5
Improve Sachuest Point Visitor Center to increase educational outreach and services	1.5 FTE	400	48	10
Improve interpretive trail ("Trail Through Time") and services at Ninigret NWR	1.0 FTE	48	48	5
Complete a new Refuge Complex Headquarters/Visitor Center	2.0 FTE	93 (does not include construction costs)	80	5
Increase overall law enforcement efforts throughout RI NWR Complex	1.0 FTE	115	48	15
Improve maintenance support of all Complex programs	2.0 FTE	435	76	15
Manage public use & conduct environmental education at Block Island NWR	0 FTE	86	20	15

<b>Tier 2 Projects</b>	<b>Staffing (FTEs)</b>	<b>Cost, year 1 (x \$1000)</b>	<b>Cost, recurring (x \$1000)</b>	<b>Project Duration (years)</b>
<b>Cultural Resources Projects:</b>				
Conduct cultural resources overview of Refuge Complex	0 FTE	367	30	5
<b>Law Enforcement Projects:</b>				
Manage non-wildlife dependent use (enforcement, outreach, etc.)	0 FTE	80	20	15
Manage hunting and fishing programs	0 FTE	43	10	15

The list of projects and the priority ranking proposed for each program area is based on current needs and information and may be subject to change as new information becomes available.

**Table F-3.** *Other projects included in the Refuge Complex CCPs.*

<b>Other Projects</b>	<b>Staffing (FTEs)</b>	<b>Cost, year 1 (x \$1000)</b>	<b>Cost, recurring (x \$1000)</b>	<b>Project Duration (years)</b>
Improve Public Use infrastructure including: trail system and handicap accessibility improvements; construction of observation platforms; and outdoor classroom site development.	0.5 FTE	710	70	10

**Table F-4.** *Projects currently backlogged in the Maintenance Management System (MMS) Database for the Rhode Island Refuge Complex.*

<b>Project #</b>	<b>Project Name</b>	<b>Refuge</b>	<b>Cost Estimate (x \$1,000)</b>
98502	Beane Point Pump House	Block Island NWR	\$177
98503	Cabin - Interior Lighting	Block Island NWR	\$8
98503	Cabin - Interior Walls	Block Island NWR	\$10
95013	Cottage - Interior Walls	Block Island NWR	\$10
95013	Cottage - Interior Lighting	Block Island NWR	\$10
95013	Cottage - Exterior	Block Island NWR	\$30
98503	Cabin - Exterior	Block Island NWR	\$55
98503	Cabin - Bathroom	Block Island NWR	\$39
99004	Law Enforcement Equipment	RI NWR Complex	\$6
98506	East Parking Lot	Ninigret NWR	\$40
92001	14' Jon Boat and Motor	RI NWR Complex	\$17
94019	1989 Chevy Blazer	RI NWR Complex	\$31
96001	1988 Chevy Celebrity	RI NWR Complex	\$27
99002	Loader tractor JD 4040	RI NWR Complex	\$85

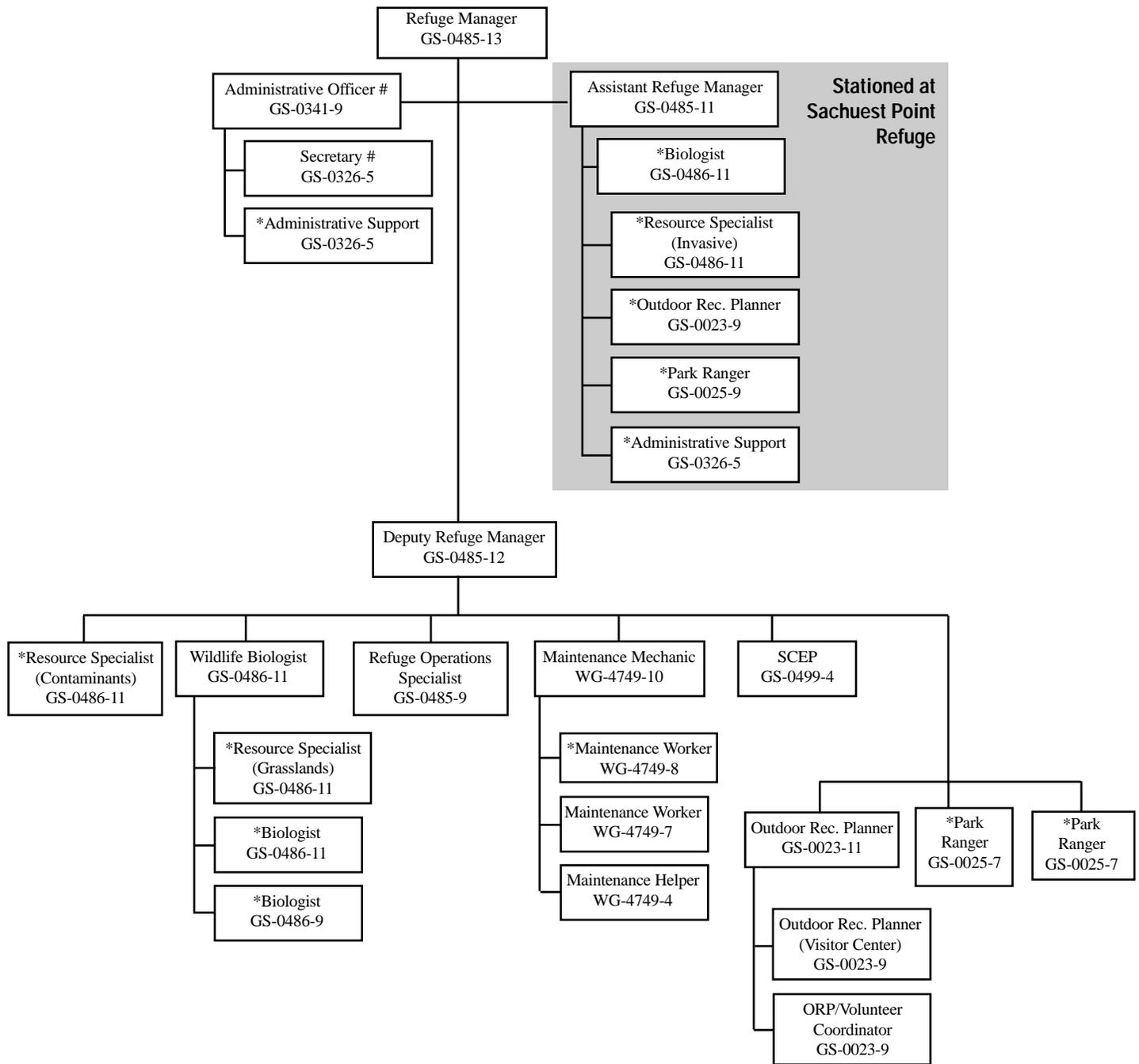
<b>Project #</b>	<b>Project Name</b>	<b>Refuge</b>	<b>Cost Estimate (x \$1,000)</b>
98508	Storage Building	Ninigret NWR	\$60
89042	Entrance Signs	RI NWR Complex	\$8
98002	Interpretive kiosk panels	Ninigret NWR	\$14
98505	Gates	Ninigret NWR	\$48
93060	Mobile Radios	RI NWR Complex	\$80
98019	Military Dump Cleanup	Ninigret NWR	\$200
98501	Magazine Structures	Ninigret NWR	\$60
98003	Interpreted historic site	Ninigret NWR	\$30
94024	Trail 504 ADA	Ninigret NWR	\$97
94025	Wildlife Viewing Trail	Trustom Pond NWR	\$44
00001	CAT D-7F bulldozer #1	RI NWR Complex	\$15
00002	CAT D-7F bulldozer #2	RI NWR Complex	\$24
00003	Clark-Mich 175 loader	RI NWR Complex	\$20
99001	Middletown Visitor Center	Sachuest Point NWR	\$500
98525	Visitor Center - Piping	Sachuest Point NWR	\$33
98528	Trail	Sachuest Point NWR	\$44
98529	East Point Trail/Platform	Sachuest Point NWR	\$60
98522	Bolen Loader's Bucket	Sachuest Point NWR	\$36
99009	JD 301A Tractor	Sachuest Point NWR	\$40
89048	Visitor Center Flooring	Sachuest Point NWR	\$25
89055	Visitor Center Chairs	Sachuest Point NWR	\$7
90075	Shoreline Access ways	Sachuest Point NWR	\$20
98524	17' Zodiac Boat and Motor	Sachuest Point NWR	\$28
98523	Visitor Center - Septic	Sachuest Point NWR	\$36
98526	Water Control Structures	Sachuest Point NWR	\$36
98525	Visitor Center Restroom	Sachuest Point NWR	\$42
98010	Visitor Center Exterior	Sachuest Point NWR	\$9
98509	ATV and Trailer	Trustom Pond NWR	\$26
98517	1988 K5 Chevy Blazer	RI NWR Complex	\$35
98519	1992 S-10 4x4 Blazer	RI NWR Complex	\$35
98521	1993 Chevy K1500 Blazer	RI NWR Complex	\$39
98516	1992 S-10 Pickup	RI NWR Complex	\$20
98520	1993 S-10 Pickup 4x4	RI NWR Complex	\$28

<b>Project #</b>	<b>Project Name</b>	<b>Refuge</b>	<b>Cost Estimate (x \$1,000)</b>
98512	Diesel storage tank replace	Trustom Pond NWR	\$40
98515	15' Aluminum Boat/Trailer	RI NWR Complex	\$22
00005	SP gate/lighting	RI NWR Complex	\$8
<b>Total</b>			<b>\$3,855</b>

# **Staffing Chart**

# Rhode Island National Wildlife Refuge Complex

(supervisory structure is tentative)



\* Essential staff (Tier 1 in RONS)  
# Positions shared with SNEP and RIFO

26 Permanent, full-time employees  
1 SCEP  
17 Seasonals

# **Plan Monitoring**

*Species and Habitat Management*

Issue/Action	Project	Target initiation date
Protection of piping plover	Refuge Biologist will coordinate with Piping Plover Recovery Team, RI DEM, and other scientists to share research and management techniques and results	current
Protection of piping plover	Actively manage nesting sites on Ninigret, Trustom Pond, and Block Island Refuges. Erect fencing as proposed. Monitor active nest sites throughout nesting season. Implement restrictions on public use at nesting sites. Monitor off-Refuge nesting beaches along the South Shore.	current
Least tern protection	Continue use of wire fence at Trustom Pond site, but adapt design to target smaller mammals (mink and weasel)	current
Management of mute swan	Implement the Service's policy (Memo FWS/MBMO/98-00043; based on Flyway Council recommendations) to prevent the establishment of or to eliminate mute swans. Adapt strategies as needed to pursue zero productivity on the Refuge Complex	2002
Management of deer populations	Complete deer management plan and EA for the Refuge Complex.	2002
Piping plover protection	Close Block Island Refuge to vehicles above mean high tide line from April 1 to Sept. 15 each year.	2003
Piping plover protection	Hire at least 5 seasonal personnel, including Biotechs, Law Enforcement, and Outreach/Education staff	2003
Piping plover protection	Work with RI DEM to move State campground near Ninigret Refuge away from plover breeding habitat	2003
Harlequin duck protection	Work with RI DEM to regulate a shoreline hunting closure. Standardize protocol for weekly harlequin duck counts.	2003
Landbird management	Evaluate recommendations in final Partners in Flight Plan, identify species of concern for Refuge, and develop management strategies to include in Habitat Management Plan; initiate salt marsh sharp-tailed sparrow surveys in suitable habitat.	2003
Piping plover protection	Reassess nesting carrying capacity (Ninigret & Trustom Pond Refuges)	2003
Piping plover protection	Begin cooperative monitoring of gull colony to ascertain whether gulls are limiting piping plover nesting on Block Island	2003
Piping plover protection	Formalize agreement with the Town of New Shoreham (Block Island Refuge) to ensure that beach would remain closed to ORVs during plover nesting, if active plover nests are located.	2003
Protect and restore American burying beetle population (Block Island Focus Area)	Participate in annual efforts to monitor American burying beetle on southern Block Island (led by RI DEM, The Nature Conservancy, and the Service's New England Field Office)	2003
Protect and restore beach strand communities	Work with partners to initiate an intensive outreach campaign targeting beach front landowners and designed to increase protection of barrier beach habitat and piping plover nesting areas (2 seasonal Park Aids would be needed to implement this project)	2003
Monitoring and protection of species of concern on Block Island	Hire a seasonal biological technician to monitor roosting eagles, nesting piping plover, colonial waterbirds, and American burying beetle populations. Also, identify threats or opportunities for land acquisition.	2003
Maintain productive waterfowl habitat	Treat at least 5 acres/year of invasive wetland plants	2003
Maintain high quality habitat for species of concern	Develop a Refuge Complex Habitat Management Plan	2003
Manage for high quality waterfowl habitat	With RI DEM and respective towns, develop a Waterfowl Management Plan for Pettaquamscutt Cove and the Lower Narrow River.	2003

*Species and Habitat Management (continued)*

Issue/Action	Project	Target initiation date
Block Island Focus Area resource management	Cooperate with Block Island partners in developing a Cooperative Resource Protection Plan and Public Use and Access Plan.	2003
Protect wetlands on Chafee Refuge	Chafee Refuge: work with RI DEM to create a "no wake zone" in Pettaquamscutt Cove to minimize impacts to the salt marshes and shoreline.	2003
Piping plover protection	Develop written cooperative agreements with at least 5 South Shore landowners with existing plover nesting sites	2004
Piping plover protection	Develop education & outreach plan for plover program	2004
Piping plover protection	Prioritize plover-related research needs	2004
Collect baseline biological information	Establish a priority list of baseline biological inventory needs to better understand and document the biodiversity on the Refuge Complex. Priorities: determine the distribution of species and habitat types listed in Appendix A, and survey the aquatic resources in Trustom Pond. (Use Regional CENSUS database or other regional database with GIS capabilities). Begin highest priority inventories.	2004
Piping plover protection	Hire a Rhode Island Piping Plover Coordinator	2004
Management of harlequin duck at Sachuest Point Refuge	Monitor public use to determine impacts of shoreline public use activities on ducks.	2004
Restore grassland and shrubland habitat	Complete restoration of 385 total acres between Ninigret, Trustom Pond, and Sachuest Point Refuges. Develop and implement a maintenance and monitoring schedule for these projects. Evaluate and document opportunities for restoring sandplain gerardia, bushy rockrose, and New England blazing star in restored areas.	2004
Restore grassland and shrubland habitat	Restore additional 15 acres of grassland on private land near Trustom Pond Refuge	2004
Restore grassland and shrubland habitat	Develop and implement a plan to maintain an additional 40 acres of early successional shrub and grasslands habitat on Sachuest Point Refuge.	2004
Invasive plant species management	Identify and map current distribution of invasive plant species on the Refuge Complex.	2004
Monitoring and Inventory Plan	Develop a Refuge Complex Species and Habitat Inventory and Monitoring Plan	2004
Management of rare plant habitats	Ninigret Refuge: develop a Site Plan and monitoring program for rare plant sites	2005
Piping plover protection	Implement highest priority research project.	2005
Bald Eagle management	Develop site plans if eagle usage on Block Island warrants management	2005
Protection of marsh and wading bird habitat	Inventory high probability sites on the Refuge Complex; determine seasonal occupancy and use.	2005
Protection of shorebird concentration areas	Map key staging and feeding areas in South Shore ABS. Develop and implement a Monitoring Plan. Within a year, resolve threats to key shorebird areas.	2005
Protection of amphibians and reptiles	Develop environmental education and interpretation programs. Work with Friends and volunteers to reduce amphibian and reptile road mortality during spring migration.	2005

*Species and Habitat Management (continued)*

Issue/Action	Project	Target initiation date
Protection of amphibians and reptiles	Implement Inventory and Monitoring Plan for amphibians and reptile concentration areas on the Refuge Complex.	2005
Protection of seal haul-out areas	Determine if human disturbance is a threat. If necessary, reduce human disturbance through public outreach efforts or restricted access.	2005
Management of rare plant habitats	Trustom Pond Refuge: develop a Site Plan for rare plant sites.	2005
Promote grassland restoration through outreach and education	Establish native grassland interpretive/demonstration areas on both Ninigret and Trustom Pond Refuges, develop exhibit at new Visitor Center, and conduct interpretive programs using volunteers and staff.	2005
Improve ecological integrity of Trustom and Cards Ponds	With partners and adjacent landowners, develop an ecosystem-based approach to managing Trustom and Cards Ponds. The plan would include monitoring and inventory efforts for species of management concern, invasive plants and animals, and submerged aquatic vegetation.	2005
Manage invasive plant species	Prioritize treatment acres to prevent new invasions or eradicate plants recently established where they don't have a stronghold yet; hire maintenance worker to implement treatments.	2005
Manage invasive plant species	Treat at least 25 acres/year of invasive exotic species, including at least 5 acres of wetlands plants, using chemical, mechanical, prescribed fire and biological treatments. Hire maintenance worker licensed for herbicide use.	2005
Protect water quality of Narrow River Watershed/Pett Cove	Become actively involved in interagency partnership recommended in the 1998 Coastal Resources Management Council, Narrow River Special Area Management Plan. Group would develop a comprehensive plan for the Narrow River watershed and set research and management priorities.	2005
Protect water quality of Narrow River Watershed/Pett Cove	Work with RI DEM, CRMC, and Towns of Narragansett and South Kingstown to create a "no wake" zone in Pettaquamscutt Cove to reduce erosion and destruction of salt marshes.	2005
Manage rare plant habitats	Survey and map rare plant sites on Chafee, Sachuest Point, and Block Island refuges.	2006
Piping plover management	Coordinate with private landowners and towns to develop contingency plans for unexpected events in piping plover areas (e.g., oil spills or pioneering of new sites on recreational beaches).	2007
American Burying Beetle restoration	Assess opportunities for expanding distribution of beetles in Block Island Focus Area; follow up with habitat management plans if warranted.	2008
Amphibians and reptiles	Complete baseline inventory for amphibians and reptiles on Trustom Pond, Ninigret, and Sachuest Point Refuges	2008
Restore wetlands on Sachuest Point and Ninigret refuges	Develop Site Plans and initiate restoration of additional wetland projects: 25 acres at Sachuest Point and 70 acres at Ninigret Refuge.	2008
Restore grassland communities & promote restoration through education, outreach, and interpretation	Establish "cooperative extension" outreach program and materials to provide technical support for interested landowners.	2008
Manage of rare plant habitats	Assess potential for establishing or restoring seabeach amaranth, sandplain gerardia, small whorled pagonia, bushy rockrose, New England blazing star, and other former candidate plant species.	2008
Potential reintroduction of northeastern beach tiger beetles in South Shore ABS	Cooperate with USFWS New England Field Office and RI DEM to evaluate habitat potential for reintroduction within South Shore ABS; within two years, develop site management and monitoring plans, if warranted.	2010
Potential reintroduction of regal fritillary butterfly	Cooperate with USFWS New England Field Office and RI DEM to evaluate grassland restoration projects for butterfly reintroduction.	2010

*Public Use*

<b>Issue/Action</b>	<b>Project</b>	<b>Target initiation date</b>
Hunting opportunities	Trustom Pond Refuge: continue with 20 acre upland field hunt for waterfowl.	current
Curriculum-based environmental education	Sponsor Teach the Teacher workshops at Ninigret and Trustom Pond Refuges.	current
Service visibility	Establish a consistent Service presence on Sachuest Point Refuge by assigning permanent staff to the station.	2002
Fishing opportunities	Sachuest Point Refuge: develop a regulation requiring spear fishing gear to be unloaded and encased while on Refuge land. Monitor this activity to evaluate its impact on other wildlife-dependent uses. Implement permit system for night fishing.	2003
Hunting opportunities	Ninigret Refuge: allow RI DEM to administer waterfowl hunt on the marshland in the barrier beach parcel. Open Coon Cove, when area is restored, to support hunting.	2003
Hunting opportunities	Open Chafee Refuge to waterfowl hunting, administered in cooperation with RI DEM.	2003
Fishing opportunities	Ninigret Refuge: designate access trails to shoreline for fishing on Ninigret Pond to minimize impact on habitat. Actively enforce restrictions. Require commercial shell fishermen to operate under special use permit.	2003
Wildlife observation and photography opportunities	Ninigret Refuge: complete construction of "Trail Through Time"	2003
Wildlife observation and photography opportunities	Trustom Pond: reduce unnecessary trails and restrict public use to trails only.	2003
Curriculum-based environmental education opportunities	Block Island Refuge: initiate formal partnership with The Nature Conservancy to facilitate sharing of resources, and assist in curriculum development and implementation. Hire a seasonal Park Aid for assistance. Use Beane Point as a classroom laboratory or housing for educators.	2003
Interpretive opportunities	Chafee Refuge: ensure that RI DEM constructs interpretive kiosk along South County Bike Trail according to Refuge stipulations.	2003
Manage non-wildlife dependent activities	Hire an additional 2 law enforcement officers to work on the Refuge Complex to eliminate inappropriate, incompatible activities	2004
Improve visitor services	Complete a Visitor Services Plan for the Refuge Complex to establish strategic goals and priorities. Hire 4 new outdoor recreation planners to implement programs and staff visitor center.	2004
Interpretive opportunities	Complete renovation of Sachuest Point Visitor Center.	2004
Curriculum-based environmental education opportunities	Ninigret Refuge: update existing MOA with Frosty Drew to ensure compatibility with Refuge Complex Visitor Services Plan. Also, evaluate compatibility of for-profit operations.	2004
Wildlife observation and photography opportunities	Sachuest Point Refuge: eliminate redundancy in trails. Designate and enforce shoreline access points	2004
Curriculum-based environmental education opportunities	Sponsor "Teach the Teacher" workshops at Sachuest Point Refuge.	2005
Manage non-wildlife dependent activities	Block Island Refuge: develop cooperative agreement with Town of New Shoreham law enforcement	2005
Manage non-wildlife dependent activities	Chafee Refuge: develop a strategy to consolidate shoreline access easement of adjacent landowners.	2005

*Public Use (continued)*

Issue/Action	Project	Target initiation date
Manage non-wildlife dependent activities	Chafee Refuge: cooperate with the Town of Narragansett and RI DOT to construct barrier-free observation platforms at Middle Bridge. Construct a second platform at Bridgeport Commons. Designate an interpretive kayak/canoe trail.	2005
Wildlife observation and photography and interpretive opportunities	Trustom Pond Refuge: make Otter Point Trail and platform barrier-free. Develop watchable wildlife pamphlet, species checklist, and self-guided trail maps.	2005
Improve public use partnerships	Develop formal cooperative agreements with current partners to identify cost sharing, technical exchange, environmental education and interpretive opportunities.	2005
Curriculum-based environmental education	Chafee Refuge: cooperate with local schools and partners to develop a classroom curriculum featuring the Narrow River estuary and Pettaquamscutt Cove.	2005
Curriculum-based environmental education	Sachuest Point Refuge: Develop formal partnership with Norman Bird Sanctuary to facilitate sharing of resources. Cooperate with towns of Middletown and Newport and local schools to develop programs featuring Refuge resources.	2005
Curriculum-based environmental education	Ninigret Refuge: establish classroom sites featuring grassland restoration and salt pond ecology. Develop a volunteer EE Corps to help implement programs at Ninigret and Trustom Pond Refuges.	2005
Curriculum-based environmental education	Trustom Pond Refuge: work with partners to develop an environmental education program featuring Pond and restoration work	2005
Interpretive opportunities	Develop interpretive programs based on Refuge Complex Visitor Services Plan objectives.	2005
Interpretive opportunities	Construct interpretive exhibit and kiosk at the South County Museum, near Chafee Refuge. Develop interpretive materials to support programs.	2005
Visitor facilities	Complete construction of Visitor Center/Headquarters for Refuge Complex. Implement recommendations for interior facility design from August 1999 Project Identification Document.	2005
Wildlife observation and photography opportunities	Sachuest Point Refuge: develop additional interpretive kiosks, improve signage, and create "watchable wildlife" pamphlets and multi-lingual literature.	2005
Fishing opportunities	Ninigret Refuge: if determined feasible, construct up to two additional observation platforms and/or viewing blinds at grassland restoration project area, and on Ninigret Pond at Foster Cove.	2005
Fishing opportunities	Chafee Refuge: allow fishing from boats and shoreline, but designate access points to shore to reduce impact to marsh. Within 2 years, construct barrier-free fishing structure, if feasible.	2005
Wildlife observation and photography opportunities	Chafee Refuge: designate interpretive canoe and kayak routes. Consider use of guided trips using a concessionaire.	2006
Visibility of Service	Chafee Refuge: finish posting all Refuge boundaries; complete posting of all new acquisitions on the Refuge Complex.	2006
Wildlife observation and photography	Sachuest Point Refuge: reconstruct Flint Point Trail and platform to provide barrier-free access. Develop watchable wildlife pamphlets, species checklists, and self-guided trail maps	2008
Wildlife observation and photography	Trustom Pond Refuge: evaluate opportunity to construct two photo blinds	2008
Visitor facilities	Construct a visitor contact facility on Ninigret Refuge.	2008

*Refuge Complex Administration*

<b>Issue/Action</b>	<b>Project</b>	<b>Target initiation date</b>
Ensure clean-up of contaminant sites	Sachuest Point Refuge: Implement site closure plan for Middletown landfill, if completed	2002
Cultivate relationship with Friends group	Conduct semi-annual meetings with the Friends group to promote communication and evaluate implementation of the MOU	2002
Improve signs	Meet with RI DOT to modify existing U.S. Route 1 directional signs.	2003
Improve road and entry signs	Complete a Refuge Complex Facilities and Sign Plan	2005
Ensure protection of cultural resources on the Refuge Complex	Initiate a cultural resource overview of Refuge Complex. Conduct field investigations of Ninigret and Trustom Pond Refuges. Record sites in a GIS database. Train at least one law enforcement officer in regulations associated with Archeological Resources Protection Act (ARPA)	2005
Ensure protection of cultural resources on the Refuge Complex	Develop an MOU with the Narragansett Tribal Council to cooperate on site interpretation and protection.	2005
Ensure clean up of contaminated sites	Obtain Refuge project funding to clean up military debris at Ninigret Refuge	2005

*Land Protection*

<b>Issue/Action</b>	<b>Project</b>	<b>Target initiation date</b>
Expand land protection program	With partners, begin active cooperative land protection and acquisition according to the Land Protection Plan.	2002



**Planner Nancy McGarigal at a CCP Open House**  
*USFWS photo*

# List of Preparers

## Core Planning Team

### **Nancy McGarigal, Regional Planner** Planning team leader

Education: BS Forestry and Wildlife  
Experience: 16 years U.S. Forest Service, Wildlife Biologist  
5 years USFWS

Phone: 413/253 8562  
Email: nancy\_mcgarigal@fws.gov

### **Leon Latino, Assistant Planner**

Education: BS Environmental Science,  
BA Anthropology  
Experience: 4 years USFWS

Phone: 413/253 8663  
Email: leon\_latino@fws.gov

### **Charlie Vandemoer, Refuge Manager**

Education: BS Wildlife Science  
AAS Wildlife Law Enforcement  
Experience: 4 years USFWS  
19 years U.S. Forest Service, Wildlife Biologist

Phone: 401/364 9124  
Email: charlie\_vandemoer@fws.gov

Core Planning Team

**Charlie Hebert, Environmental Contaminant Specialist**

(former Refuge Manager)

Region 1 – Portland, OR

Education: BS Forest Management  
MS Wildlife Management

Experience: 22 years USFWS

Phone: 503/231 6223

Email: charlie\_hebert@fws.gov

**Gary Andres, Assistant Refuge Manager**

Education: BA Government/Natural Resource Management

Experience: 14 years USFWS

Phone: 401/364 9124

Email: gary\_andres@fws.gov

Assisting in Land  
Protection Strategies

**Nancy Pau, Endangered Species Biologist**

(former Land Acquisition Planner)

Region 1, Sacramento, CA

Education: BS Natural Resources,

Experience: 4 years USFWS

Phone: 916/414 6494

Email: nancy\_pau@fws.gov

**Andrew MacLachlan, Wildlife Biologist/GIS Specialist**

Assisted in developing land protection strategies

Education: MS Zoology

Experience: 5 years field work and environmental education  
1 year Audubon Society, Refuge Manager  
4 years URI and State of RI  
10 years USFWS

Phone: 401/364 9124

Email: andrew\_maclachlan@fws.gov

**Andrew Milliken, Atlantic Coast Joint Venture Coordinator**

Education: BA Northern Studies/Biology

MS Biological Oceanography

Experience: 3 years NY State

3 years URI

2 years USEPA

9 years USFWS

Phone: 413/253 8269

Email: andrew\_milliken@fws.gov

Other USFWS personnel  
contributing to or  
consulting on the plan

**Norma Kline, Refuge Biologist**

Education: BS Political Science  
MS Biology  
Experience: 3.5 years EPA Ecologist  
1.5 years Natural Heritage Ecologist  
5 years consulting ecologist  
3 year USFWS  
Phone: 401/364 9124  
Email: norma\_kline@fws.gov

**Janis Nepshinsky, Outdoor Recreation Planner**

Education: BS Environmental Technology  
MS Environmental Engineering  
Experience: 15 years St. Johns River Water Management District  
1.5 years Department of Defense, Environmental  
Health Technician  
3.5 years Hobe Sound Nature Center, Director  
7 years USFWS  
Phone: 401/364 9124  
Email: janis\_nepshinsky@fws.gov

**Susan Fuller, Biologist/GIS specialist**

Education: BS & MS Wildlife and Fisheries Biology  
Experience: 4 years USFWS  
Phone: 508/253 8533  
Email: sue\_fuller@fws.gov

**Greg Thompson, Biologist/GIS specialist**

Education: BS Wildlife and Fisheries Biology  
Experience: 10 years USFWS  
Phone: 508/253 8587  
Email: greg\_thompson@fws.gov

**Victoria Jacobson, Archeologist**

Cultural resources overview

Education: BA Anthropology  
MA Archeology  
Experience: 3 years USFWS  
3 years Project Archeologist  
10 years archeological field work  
Phone: 413/253 8531  
Email: victoria\_jacobson@fws.gov

Other USFWS personnel  
contributing to or  
consulting on the plan

**Janith D. Taylor, Regional Biologist, Refuges and Wildlife**

U.S. Fish and Wildlife Service  
336 Nimble Hill Road  
Newington, NH 03801

Education: BS Wildlife Biology  
Experience: 1 year USFS  
20 years USFWS

Phone: 603/431 5581  
Email: jan\_taylor@fws.gov

**Anne Hecht, Endangered Species Biologist**

Consulted on piping plover alternatives

Education: BA philosophy  
MF forestry

Experience: 4 years USFS  
18 years USFWS

Phone: 978/443 4325  
Email: anne\_hecht@fws.gov

Addresses

**Northeast Regional Office**

Refuges and Wildlife  
300 Westgate Center  
Hadley, MA 01035

Phone: 413/253 8200  
Fax: 413/253 8468

**Rhode Island Refuge Complex Headquarters**

Route 1A, Shoreline Plaza  
PO Box 307  
Charlestown, RI 02813

Phone: 401/364 9124  
Fax: 401/364 0170

**Ecological Services Southern New England – New York Bight  
Coastal Ecosystems Program**

Route 1A, Shoreline Plaza  
PO Box 307  
Charlestown, RI 02813

Phone: 401/364 9124  
Fax: 401/364 0170

Appendix J

# Section 7 (Endangered Species Act) Consultation

## Intra-Service Section 7 Biological Evaluation

**Originating Person:** Nancy McGarigal, Refuge Planner, Regional Office  
**Telephone Number:** (413) 253-8562  
**Date:** 27 December 2001

**Region:** Northeast (R5)

**Service Activity (Program):** Refuges and Wildlife, Division of Planning, will soon complete Comprehensive Conservation Plans (CCPs) for the five national wildlife refuges in the Rhode Island National Wildlife Refuge Complex. Management goals, objectives, actions and strategies for the CCPs are outlined in the Rhode Island National Wildlife Refuge Complex, Draft Comprehensive Conservation Plan/Environmental Assessment (CCP/EA), December 2000. We are proposing to implement Alternative B in the Draft CCP/EA, with the modifications identified in the attached Finding of No Significant Impact (FONSI) and final Land Protection Plan.

### **Pertinent Species and Habitat:**

#### **Listed species and/or critical habitat within the action area:**

- 1) Piping plover (*Charadrius melodus*): Breeding sites occur on the Refuge Complex (Ninigret and Trustom Pond refuges) and along the South Shore of Rhode Island on private and state lands cooperatively managed by the Service. No critical habitat has been designated for the Atlantic Coast piping plover population.
- 2) American burying beetle (*Nicrophorus americanus*): Breeding occurs on southern Block Island; foraging beetles have been documented on refuge lands on northern Block Island. No critical habitat has been designated for the American burying beetle.
- 3) Northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*): There are no populations known for the Rhode Island Refuge Complex as it is presumed extirpated from Rhode Island. Block Island and areas along the South Shore, however, were identified in the Recovery Plan as possible reintroduction sites. No critical habitat has been designated for the Northeastern beach tiger beetle.
- 4) Bald eagle (*Haliaeetus leucocephalus*): There are no known breeding sites known on the Refuge Complex although consistent observations of immature eagles occurs during late spring and summer on Block Island refuge and adjacent lands. No critical habitat has been designated for the bald eagle.

There are no federal Proposed or Candidate species or their habitats within the project area.

### **Geographic area or station name and action:**

The Rhode Island Refuge Complex includes Block Island, Ninigret, John H. Chafee (Chafee), Sachuest Point, and Trustom Pond National Wildlife Refuges. We also propose expanding each refuge as documented in the attached Final Land Protection Plan.

**Location (attach map):**

The Draft CCP/EA shows a vicinity map on page 1-5, a Connecticut River/ Long Island Sound Ecosystem map on page 1-11, and individual Refuge maps on page 1-17 (Block Island Refuge), page 1-19 (Ninigret Refuge), page 1-21 (Chafee Refuge), page 1-23 (Sachuest Point Refuge), and page 1-25 (Trustom Pond Refuge). The final Land Protection Plan provides maps of each of the proposed refuge expansion areas.

**Ecoregion Number and Name:**

221A, Eastern Broadleaf Forest (Oceanic) Province, Lower New England Section

**County and State:**

Washington County, Rhode Island (Block Island, Chafee, Ninigret and Trustom Pond Refuges)  
Newport County, Rhode Island (Sachuest Point Refuge)

**Latitude and Longitude**

(See maps mentioned above)

**Distance (miles) and direction to nearest town:**

Block Island Refuge is within the Town of New Shoreham, Rhode Island  
Ninigret Refuge is within the Town of Charlestown, Rhode Island  
Chafee Refuge is within the Towns of Narragansett and South Kingstown, Rhode Island  
Sachuest Point is within the Town of Middletown  
Trustom Pond is within the Town of South Kingstown

**Species/habitat occurrence:**

- 1) Piping plover (*Charadrius melodus*): Population status, habitat descriptions, past and current management activities for the Refuge Complex and the South Shore off-refuge management program occur on the following pages of the Draft CCP/EA:

Block Island: page 2-18 to 2-19

Ninigret: page 2-29

Chafee: page 2-36

Trustom Pond: pages 2-50 to 2-52

South Shore Plover Program (cooperative management off-refuge lands): pages 2-53 to 2-54

- 2) American burying beetle (*Nicrophorus americanus*): Population status, habitat description, past and current management activities for Block Island occur on the following page of the Draft CCP/EA:

Block Island: page 2-18

- 3) Northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*): There are no populations known for the Rhode Island Refuge Complex; however, Block Island and the South Shore area were identified in the Recovery Plan as possible reintroduction sites. This is referenced in the Draft CCP/EA on the following page:

Block Island: page 2-19

- 4) Bald eagle (*Haliaeetus leucocephalus*): There are no known breeding populations on the Refuge Complex. Descriptions of foraging and roosting activities occur on the following pages in the Draft CCP/EA:

Block Island: page 2-19

Ninigret: page 2-29

Trustom Pond: page 2-50

### **Description of proposed action:**

Proposed actions affecting the above-mentioned species, or the habitats they depend on, are included under Alternative B – the Service’s Proposed Action, in the Draft CCP/EA, with modifications identified in the FONSI and final Land Protection Plan. Specific actions are discussed in the Draft CCP/EA, Chapter 3: Alternatives, for each species as follows:

Piping plover: pages 3-42 through 3-45, page 3-49, pages 3-54 and 3-55, and in Table 3-2 on pages 3-126 through 3-129.

American burying beetle: page 3-46, and in Table 3-2 on page 3-129.

Northeastern beach tiger beetle: page 3-47, and in Table 3-2 on page 3-129

Bald eagle: page 3-46 and 3-47, and in Table 3-2 on page 3-129

### **Determination of effects:**

Effects of proposed Refuge management on endangered species is discussed in the Draft CCP/EA, Chapter 4: Environmental Consequences. The consequences of implementing Alternative B are presented for respective species on the following pages:

Piping plover: Block Island (page 4-14 and 4-15, 4-19 through 4-21);

Ninigret (pages 4-37 and 4-38); Trustom Pond (pages 4-73 and 4-79).

American burying beetle: Block Island (page 4-19, 4-21 and 4-22)

Northeastern beach tiger beetle: None described

Bald eagle: Block Island (page 4-20)

Rhode Island National Wildlife Refuge Complex CCP  
Intra-Service Section 7 Consultation

Effect determination and response requested:

Listed species/critical habitat:

<u>Determination</u>	<u>Species</u>	<u>Response requested</u>
May affect/beneficial effect	Piping plover	Concurrence
No effect/No adverse modification	American burying beetle	Concurrence ✓
No effect/No adverse modification	Northeastern beach tiger beetle	Concurrence
No effect/No adverse modification	Bald eagle	Concurrence ✓

Walter A. McFarland, Regional Planner  
(Signature/Title/Office of Originator)

1/2/02  
(Date)

Reviewing ESO Evaluation:

- A. Concurrence  Non-concurrence
- B. Formal consultation required
- C. Conference required
- D. Informal Conference required
- E. Remarks (attach additional pages as needed):

Mihul Amara 1/07/2002  
Suzanne Lynn Oettinger 1/07/2002  
 Signature date  
 [title/office of reviewing official]

## Appendix K

# State Historic Preservation Office Consultation



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

300 Westgate Center Drive  
Hadley, MA 01035-9589



In Reply Refer To:  
FWS/Region 5/NWRS

MAY 28 2002

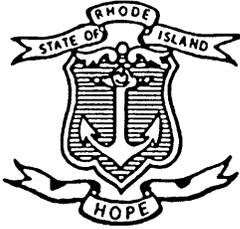
Memorandum

To: Nancy McGarigal, Regional Planner

From: John S. Wilson, Regional Historic Preservation Officer

Subject: CCP Review by Rhode Island Historical Preservation and Heritage Commission

I have examined the Rhode Island Historical Preservation and Heritage Commission review comments on the draft Comprehensive Conservation Plan (CCP) for the Rhode Island National Wildlife Refuge (NWR) Complex (re: 11/8/2000 letter from Taylor to McGarigal). Their comments are primarily informational in nature, providing details on archaeological sites we were unaware of at the time of the draft. Information relating to these sites is now incorporated into the final document and included in our Regional database. The only other comment of note is their offer to assist us in developing environmental education and interpretive programs relating to human use of the landscape and resources in prehistoric and historic times. In particular, they are interested in the proposed "Trail Through Time" on Ninigret NWR. I recommend they be consulted, together with the Narragansett Indian Tribe, for this and other similar educational and interpretive efforts on the Refuge Complex. With these comments, you should consider our compliance with Section 106 of the National Historic Preservation complete for the CCP.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
HISTORICAL PRESERVATION & HERITAGE COMMISSION

Old State House • 150 Benefit Street • Providence, R.I. 02903-1209

Preservation (401) 222-2678      FAX (401) 222-2968  
Heritage (401) 222-2669      TDD (401) 222-3700

8 November, 2000

Nancy L. McGarigal  
Refuge Planer  
US Fish and Wildlife Service  
3000 Westgate Center Drive  
Hadley, MA 01035

RE: Draft Comprehensive Conservation Plan  
Rhode Island National Wildlife Refuge Complex

Dear Ms. McGarigal:

At your request, we have reviewed the above-referenced draft in accordance with Section 106 of the National Historic Preservation Act, and we have the following comments.

In some of the refuge-specific sections, the history of the use of the land through time by both Native Americans and Europeans is discussed. This aspect of public interpretation could be mentioned more explicitly in the first chapter of the draft as an opportunity for environmental education.

Block Island Refuge

2-23 Although the report states that no prehistoric sites have been recorded within this refuge, part of it does lie within the Great Salt Pond Archaeological District, listed on the National Register of Historic Places. Additionally, to clarify a section in Victoria Jacobson's report-Block Island's Great Salt Pond National Register District is not part of the Indian Use of the Salt Pond Region National Register Context.

Several Native American sites are present along the borders of refuge property, and quite possibly extend into it. I have enclosed a copy of the map of this refuge showing the northern boarder of the NR district and the location of the nearest sites to the refuge properties. RI 1394 seems to be located within the refuge; I have enclosed additional material on this site.

Ninigret Refuge

2-34 Besides the Foster Cove National Register site mentioned in this section, there are several other known Native American

sites, as referenced in Jacobson's report, which could be mentioned in this section. Information on these sites was sent to Shelley Hight of the Fish and Wildlife Services in 1997.

2-35 We would be happy to assist in the planning and implementation of the proposed "Trail through Time," and at the very least we would like to review the interpretive displays.

I have also enclosed for your general information a copy of a paper I wrote on nearby Fort Ninigret; this is hopefully going to appear as a chapter in a book on the forts of Long Island Sound that the Long Island Historical Society is in the process of producing.

John H. Chafee National Wildlife Refuge

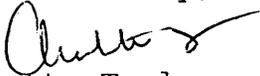
I have marked the location of known sites on the map of the refuge provided in the draft; several of these (1096, 111, 112, 116 and 1034), appear to be located in the refuge or just at the margins of refuge lands, possibly extending into them. I have enclosed some information on these sites.

Sachuest Point NWR

I have enclosed information on the two known prehistoric sites (RI 1785 and 1786) in the refuge, and marked their location on the map.

Please let me know if I can provide further information; for instance, do you have copies of the National Register forms for the mainland salt pond area and the Block Island district? I would be happy to send you these if you would like. My direct phone number is (401) 222-4140.

Yours sincerely,



Charlotte Taylor  
Staff Archaeologist